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ABSTRACT

Teachers' utilization of personal practical knowledge in effecting school reform was analyzed in a three-year project in a Toronto inner city elementary school. The major unit of study was the school, investigated through the eyes of teachers, principal, and other people responsible for school policy. The study was pursued in the context of the school board's Race Relations Policy and Inner-city Language Development Policy, and is presented in four volumes. Participant observers noted the activities of the principals, teachers, and one teacher in particular to determine the key factors affecting their practice in school and classroom. Then these practices were explained in terms of the staff's personal knowledge. This first volume is divided into four parts: (1) an overview of the project; (2) a detailed summary of the observations; (3) an account of the methodology; (4) an analysis of commonly held images about the relationship between theory and practice and how the images held by board and school personnel influence the institution's shape and direction. (MCK)

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THE ROLE OF TEACHERS' PERSONAL PRACTICAL KNOWLEDGE IN EFFECTING BOARD POLICY

VOLUME I
PROBLEM, METHOD, AND GUIDING CONCEPTION

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RESEARCH SUPPORT

Funding was provided by the Social Sciences and Humanities Research Council of Canada (SSHRCC), and by the National Institute of Education (NIE) through its grants for research on knowledge use and school improvement. NIE provided primary funding for the first two years of the project. During that time, the SSHRCC provided auxiliary support for areas not adequately covered by the National Institute of Education. The third year of the project has been fully supported by SSHRCC.

The major contributions of the SSHRCC for the first two years were support for graduate assistants, additional computer and word processing assistance, temporary secretarial assistance and travel to and from project schools. Graduate assistants have been involved in seven principal project activities. These included the drafting of papers, interviewing participants, analysis of board documents, participant observation at board-level meetings, participant observation in the school, computer entry of data, and development of computer methodologies for handling textual data. Details are provided in Chapter 2 in the section on project staffing.

SSHRCC is providing additional funding to support the continuation of this study (Grant #410-83-1235).

The Principal Investigators and Project Staff of this study gratefully acknowledge the funding received from the National Institute of Education and from the Social Sciences and Humanities Research Council of Canada. This report reflects the views of the authors and not necessarily those of the granting agencies.

GENERAL INTRODUCTION

This study develops the concept of teachers' personal practical knowledge through a three-year project undertaken in a Toronto inner-city elementary school. Using the method of participant observation, researchers carefully noted the practices of the school principal and teachers, focussing on one teacher in particular, to determine the key factors affecting their practice in school and classroom.

The central purpose of the study is to deepen our understanding of the practice of education by illuminating the actions of practitioners. What teachers and principals do in their schools is explained in terms of their personal practical knowledge, a concept that includes the associated notions of image, narrative unity, ritual, and rhythm. These notions arose out of the researchers' close interaction with school practitioners over the period of study. The results of the project have important implications, not only for an understanding of practice, but also for an insight into how practitioners view school board policy and how they go about implementing it.

This report is organized into four volumes with a combined total of thirteen chapters. Volume I, entitled *Problem, Method and Guiding Conception*, contains four chapters. Chapter 1 provides an overview of the study, Chapter 2 gives a detailed summary of its activities, and Chapter 3 provides an account of its methodology. Chapter 4 presents an analysis of the various "images" people have of the relationship between theory and practice, and draws on the researchers' experiences in the present study to show how the images held by board and school personnel influenced its shape and direction.

Volume II, *Development and Implementation of a Race Relations Policy by the Toronto Board of Education*, deals with the specific policy selected for purposes of this study -- the Race Relations Policy. A history of the development of the policy is given in Chapter 5, along with an analysis and discussion of the concept of race that emerged during the process of development. Chapter 6 presents a detailed account of the implementation of the policy, describing the activities of the Race Relations Committee and interpreting its work as an agent of policy implementation. As well, the chapter describes the actions taken by board officials to ensure that the policy was reflected in the curriculum materials used in classrooms.

Volume III, *Personal Practical Knowledge*, develops the central concept of the study and introduces several associated concepts. Chapter 7 introduces the notion of personal practical knowledge, built up through close observation and interpretation of events in the inner-city school under study. Various associated concepts -- image, narrative unity, and ritual -- are subsequently introduced to help explain their actions. The notion of image as a personal knowledge construct exerting a powerful influence on practice is developed in Chapter 8 in connection with one teacher's image of the classroom, and further elaborated in Chapters 9 and 10 in connection with the principal's image of community. Chapter 9 also discusses the function of rituals and personal philosophies in school practice, and Chapter 10 develops the concept of narrative unity as a way of giving an account of a principal's school practices. The concept of narrative unity is then broadened to include cultural narratives, which provide a context for personal narratives. These notions are used to shed light on the relationship between school and community.

Volume IV, *Personal Practical Knowledge and Ethnic Relations*, begins with an account of the Board's Race Relations Policy as it is put into practice in the school under study, using the perspective of personal practical knowledge (Chapter 11). Chapter 12 shows how personal and cultural narratives are expressed through cycles and rhythms, which find their place in the interaction of these narratives. Cycles are shown to have an affinity to the broader societal context, and rhythms to the personal world of the individual. The role of cycles and rhythms in modulating school and community relations is described. Finally, Chapter 13 summarizes personal practical knowledge as the way that practioners "know" their school and classroom and the determining influence on how they deal with matters such as race and ethnic relations. The chapter closes with recommendations for using the knowledge gained in this study to enrich classroom practice.

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VOLUME II: DEVELOPMENT AND IMPLEMENTATION OF A RACE RELATIONS POLICY BY TORONTO BOARD OF EDUCATION

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Chapter 13	The Teachers' Ways of Knowing the Classroom: Relevance for Teaching for Cultural Understanding

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We are most indebted to the staff of Bay Street School who worked with us for a period of more than three years on this research project. Without their willing participation in it, this study would not have been possible.

We would also like to thank members of our Reference Committee and express our appreciation for their involvement in the study:

- Dr. E. Wright, Director of Research for the Toronto Board of Education
- Dr. Ouida Wright, Assistant Superintendent of Curriculum, Toronto Board of Education
- Mr. John Bates, Toronto Board of Education
- Mr. Tony Sousa, Race Relations Advisor, Toronto Board of Education
- Bay Street School Participants: Phil Bingham, Stephanie Winters, Ellen Bodnar, Cynthia Smith, Grace Anderson (all pseudonyms)

The research team has varied in number over the course of the study. The contributions of the following members are particularly noted:

- Esther Enns, for her participation in the Race Relations Sub-Committee meetings and for her analysis of the work of the Race Relations Committee, presented in Chapter 6.
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- Mr. Jim Kormos, for his analysis of the History of the Race Relations Policy, presented in Chapter 5.
- Mr. Claus Wittmack, for his participation in the project.
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F.M.C.
D.J.C.

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Chapter 1

OVERVIEW

This research highlights two interrelated issues: school reform and the relationship between theory and practice. These issues are related in that those seeking to change schools face the perennial problem of putting existing knowledge into practice; the problem is therefore one of determining how theory relates to practice and vice versa. For the past two decades, however, knowledge, in the form of policies, new curricula, school reorganization, and the like, has been taken for granted, and research has focussed on strategies, techniques, planned change, and implementation. School change has been viewed as a matter of methodology, of mediating between knowledge and action. Process rather than substance dominated both the research literature and the interests of school system reformers. Dissatisfaction with the various theory/practice conceptualizations on which these research and reform efforts were based prompted the National Institute of Education to establish a Knowledge Use and School Improvement Grants program. The program focusses directly on the problem of knowledge.

It is against this background of reform and research that the study reported here was conducted. The study views school improvement as a problem in the practical uses of knowledge rather than a problem in implementation, and attempts to see school activities from the perspective of the teacher-user. The major unit of study is the school, investigated through the eyes of teachers, principal and other people responsible for policy within the school.[1]

The research has two overall purposes, one practical and one theoretical:

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[1] Note: To ensure the privacy of participants in this study, pseudonyms are used throughout the report.

1. The practical purpose is to report the results of a long-term study in one inner-city school, and in so doing to explain that school's practices in terms of the personal practical knowledge of its teachers.

2. The theoretical purpose is to develop a person-centered language and perspective for accounting for school practices and for the actions of school practitioners.

In this study we ask, "What is the meaning of the daily actions performed by school practitioners?" We assume that these actions are "minded", that is, that they are knowing actions. Accordingly, we can rephrase our question to ask, "What personal knowledge of the practitioner makes sense of the things done?" This question sets the practical quest of our work.

The practical quest mirrors its theoretical counterpart: "With what language, and with what perspective, can researchers make sense of knowing school acts?" Some fifteen years ago Schwab reminded the educational community that its theories for understanding schooling were exhausted. What was needed, he said, was a new language, one that would reveal the intricacies and meaning of practical life. This is the theoretical quest of our work. These quests are pursued in the context of the Race Relations and Inner-City Language Policies of a large city (Toronto). The study takes place in a single inner-city school. These two policies are briefly described below. A much more detailed description of the Race Relations Policy, the one of primary importance in this study, is provided in Volume II.

Racial and ethnic relations present a significant problem as society becomes more multicultural in nature. The Ontario Government has endorsed a policy of multiculturalism, and in so doing has recognized the rights of individual groups to retain aspects of their culture important to them. As part of that policy, efforts are being made to eliminate all traces of racism in schools and in society generally. Against a backdrop of developing racial tension and concern by city social planning agencies, the Toronto Board of Education made the elimination of racism a major policy direction for the 1980s. In September 1979, the Board adopted 119 recommendations related to race relations and the curriculum, placement and assessment practices, racial incidents within the schools, extra-curricular activities, employment and promotion, equal opportunity programming and responsibilities of other levels of government. A committee of the Board was established to recommend specific actions that the Toronto Board and its teaching staff could undertake to combat the spread of racism.

The Toronto Board's Inner-City Language Policy consists in the identification of four inner-city "project schools" and in giving them a special mandate to improve pupil achievement, particularly in the use of language across the curriculum. These schools require voluntary commitment on the part of all staff memebers to extra inservice sessions, shared decision-making as it relates to curriculum, willingness to become involved in community activities, responsibilities for continual consultation with parents about pupil progress, and a belief in the pupil's ability to improve academic achievement substantially. Each project school has been assigned one curricululm resource teacher. The school in which the present study was conducted was one of the project schools implementing this policy.

The following pages list the research purposes specified in the original proposal, and summarize the accomplishments of the project in terms of these purposes. The organization of the report into volumes and chapters is described in the General Introduction to each volume.

The purposes specified for the study in the original proposal are listed below:

1. To conceptualize the practical knowledge and practical reasoning of urban teachers of multi-ethnic schools set in the context of Board of Education policy and curriculum programs for ethnic equality and opportunity.

   Assumptions:

   1.1 That the character of theoretical knowledge differs from the character of practical knowledge.

   1.2 That the teacher is the main practical agent of concern to school improvement purposes.

2. To identify and conceptualize the form and content of "translated theoretical knowledge" as it appears to school systems and school personnel.

Assumptions: 2.1 That the structure of theoretical knowledge, while at issue in theoretical literature, is not a subject of inquiry in this proposal.

2.2 That theoretical knowledge as commonly understood is transformed into fragmented bits and pieces of information that reaches school systems in the form of policies, papers, proposals, workshops, consultants, and so forth.

3. To conceptualize the interface relationship between "translated theoretical knowledge" and practical knowledge.

Assumption: 3.1 That multifaceted interpretations of this relationship will emerge from working with teachers on the one hand and representatives of the world of theory on the other.

4. To conceptualize the particular characteristics of the relationship of knowledge in ethnic relations and the teachers' practical knowledge of ethnic relations as found in urban schools coping with their school board policy on ethnic relations.

Assumption: 4.1 That tracing in detail the knowledge problem in ethnic relations will contribute both to the aims of improving ethnic relations in schools and to our general understanding of the relations between theoretical and practical knowledge in school reform.

5. To conceptualize, through the methodology of this study, dialectical methods of school reform which acknowledge the integrity of practitioners and which contribute to their personal development.

Assumptions: 5.1 That the dialectical methods of study proposed herein will contribute first and foremost to the teacher's personal growth in the area of race relations.

5.2 That, as a corollary, our conceptualizations as defined in purposes one through four, cannot be achieved without the personal development of co-operating teachers and other school officials.

6. To elaborate methods of study which make possible the preceding five purposes.

Assumption: 6.1 The qualitative methods described above and utilized herein must, themselves, be developed and adapted to school improvement purposes. They cannot be inserted as mere means to our ends as, for example, a structured interview, standardized thinking test or controlled sample might be used for other purposes.

Each of the six research purposes outlined above is treated in the report. The first purpose of the research is to offer a conceptualization of the practical knowledge and practical reasoning of urban teachers of multi- ethnic schools. An account of our conception of personal practical knowledge is offered in Volumes III and IV of this report. Chapter 7 (Volume III) offers a summary of our concepts of personal practical knowledge.

The second purpose of the research is to identify and conceptualize the form and content of theoretical knowledge as it appears to school systems and school personnel. In Chapter 5, we present a history of the development of the Race Relations Policy and offer an account of the concept of race embodied in the policy. Chapter 6 presents an analysis of the activities of the Race Relations Committee, the board committee charged with monitoring the implementation of the Race Relations Policy, and describes the actions of the Board's Curriculum Department in implementing the policy.

The third research purpose, to conceptualize the interface and interactions between theoretical knowledge and teachers' practical knowledge, is treated in Chapter 7 on The Concept of Personal Practical Knowledge.

The fourth purpose, to conceptualize the particular characteristics of the relationship of knowledge in ethnic relations and teachers' practical knowledge, of ethnic relations, is treated in Chapter 13 in our work on the teacher's ways of knowing the classroom.

The fifth purpose, the conceptualization of a dialetical method of school reform which acknowledges the integrity of practitioners and contributes to their personal development, is treated in Chapter 3 on Methodology, and in Chapter 4, on the Images of the Relationship of Theory and Practice.

The sixth purpose is treated in Chapter 3 and in the Appendix to the chapter, which describes the computer technology developed as part of this project.

This overview concludes with a brief summary of the timeline for the study. A detailed account of project activities is presented in Chapter 12.

RESEARCH TIMELINE

May, 1980	Proposal written for SSHRCC/NIE - submitted
August, 1980	Proposal given to Assistant Superintendent, Toronto Board of Education.
October, 1980	Preliminary discussions with Dr. E. Wright, Director of Research, and Dr. Ouida Wright, Assistant Superintendent, Curriculum, Toronto Board of Education.
October-November, 1980	Negotiation of Entry with Toronto Board of Education.
November 15, 1980	Proposal submitted to Toronto Board of Education Research Review Committee.
November 26, 1980	Approval from Toronto Board of Education for research.
November, 1980	Approval from NIE for funding of project.
December 22, 1980	Board approval to contact school 1 (Circle School).
January, 1981	Approval for supplemental funding for year 1 and 2 of research and third year funding from SSHRCC.
January, 1981	Negotiation of Entry, Circle School. Unsuccessful.
February-April, 1981	Negotiation of Entry, Bay Street School. Successful.
April, 1981	Negotiation with classroom teachers in Bay Street School.
April-June, 1981	Intensive participant observation (school and classroom level), Bay Street School.

June, 1981	Project presentation at Canadian Society for Study in Education meetings in Halifax.
July-August, 1981	Preliminary data analysis.
September, 1981-June, 1982	Intensive participant observation at classroom level.
October 22, 1981	Reference Committee meeting.
January, 1982	Preparation of document, History of Race Relations Policy and Concept of Race in Race Relations Policy.
March, 1982	Presentation of paper at the American Educational Research Association meetings, New York.
May, 1982	Presentation of research paper for the British Columbia Department of Education.
June 4, 1982	Reference Group meeting.
June, 1982	Participation in seminar on Teacher Thinking at the University of Sherbrooke.
July-August, 1982	Data analysis.
July, 1982	Research presentation with Bay Street School principal to the Summer Institute on Administration at OISE.
September, 1982-June , 1983	Seminar series.
September, 1982-April, 1983	Data analysis.
September, 1982-April, 1983	Participant observation (school level).
March, 1983	Symposium presentation on the research at the American Educational Research Association meeting at Montreal.
March 9, 1983	Reference Committee meeting.
June, 1983	Seminar on Personal Practical Knowledge at the University of Alberta.

July, 1983 to March, 1984	Data Analysis, preparation of papers.
July, 1983	Presentation with Bay Street School principal at York University.
October, 1983	Paper presentation at the First International Symposium Association meeting on Teacher Thinking, Tilburg University, The Netherlands.
January, 1984	Analysis of Race Relations Sub-Committee minutes and documents.
March, 1984	Presentation at the Curriculum in the Making meeting in Haifa, Israel.
March, 1984	Preparation of the National Society for the Study in Education Yearbook Chapter on project data.
April, 1984	Presentation of research at the American Educational Research Association meetings in New Orleans.

Chapter 2

SUMMARY OF PROJECT ACTIVITIES

This chapter provides a summary of project activities from January 1981 to the writing of this final report in April 1984. The chapter is organized under the following headings:

1. General summary of progress.
2. Work in Bay Street School, including participant observation and interview detail.
3. System-level work, including an account of researchers' attendance at system-level professional development activities, interviews with Equal Opportunity staff, and attendance at Race Relations Committee meetings.
4. Project staffing.
5. Research group.
6. Reference group.
7. Data handling and data analysis.
8. Document collection and analysis.
9. Consultants.
10. Project meetings.
11. The Seminar Group.
12. Preliminary Data Analysis.
13. Other Pertinant Information.

Where appropriate, the reader is referred to other chapters of this report.

2.1. GENERAL SUMMARY OF PROGRESS

During the first two years of the study, research activities were recorded for each three-month period. For the third and final year of the study, when participant observation work was less intensive, activities were summed up for the year rather than on a quarterly basis.

Research activities were concentrated in the following areas:

2.1.1. February, March, April of 1981

1. Negotiation of entry into the Toronto school system and into a Toronto school.
2. Staffing of the project.
3. The establishment of an advisory group.
4. Establishment of a computerized data handling and analysis system.
5. Collection of policy documents.
6. Communication with project consultants and the establishment of an ongoing seminar group.

2.1.2. May, June, July of 1981

1. Participant observation in one school classroom by the research assistant.
2. Participant observation in the library by the principal investigator.
3. Participant observation in school events such as cabinet meetings, open house, and outdoor a and outdoor events.
4. Interviews with relevant school personnel.
5. Attendance at professional development activities both in the project school and in the central office.
6. Interviews with professional staff charged with the implementation of the policy.
7. Project staffing.

8. Liaison with the resource group.
9. Liaison with the reference group.
10. Development of a computerized data handling and analysis system.
11. Collection and analysis of policy documents.
12. Ongoing work in the seminar group.
13. Communication with project consultants.
14. Preliminary analysis of the field notes and interview transcripts.
15. Conferences.

2.1.3. August, September, October of 1981

1. Participant observation in one school classroom by the research assistant.
2. Participant observation in the library by the principal investigator.
3. Participant observation in a second school classroom by a graduate assistant.
4. Participant observation in school events such as cabinet meetings, open house, school community relations meetings and school activities.
5. Participant observation of grade level and division meetings associated with the Curriculum Resource team.
6. Interviews with relevant school personnel.
7. Attendance at professional development activities both in the project school and in the central office.
8. Interviews with professional staff charged with the implementation of the policy.
9. Project staffing.
10. Liaison with the resource group.
11. Liaison with the reference group.
12. Development of a computerized data handling and analysis system.
13. Collection and analysis of policy documents.

14. Ongoing work in the seminar group.
15. Communication with project consultants.
16. Preliminary analysis of the field notes and interview transcripts.
17. Participant observation in activities associated with Bay Street School participation as a Human Rights Leadership School.

2.1.4. November, December of 1981, January of 1982

1. Participant observation in one school classroom by the research assistant.
2. Participant observation in the library by the principal investigator.
3. Participant observation in a second school classroom by a graduate assistant.
4. Participant observation in school events such as cabinet meetings, staff meetings, open house, school community relations meetings and school activities.
5. Participant observation of grade level and division meetings associated with the Curriculum Resource team.
6. Interviews with school personnel.
7. Attendance at professional development activities both in the project school and in the central office of the board.
8. Communication with professional staff charged with the implementation of the policy through attendance at Race Relations Committee meetings and Race Relations training sessions.
9. Project staffing.
10. Liaison with the resource group.
11. Liaison with the reference group.
12. Development of a computerized data handling and analysis system.
13. Collection and analysis of policy documents.
14. Ongoing work in the seminar group.
15. Communication with project consultants.
16. Preliminary analysis of the field notes and interview transcripts.

17. Attendance at Race Relations Committee meetings.
18. Interview with Human Rights Commission staff.
19. Participation in the Intermediate Division Project.
20. Participant observation in activities associated with Bay Street School participation as a Human Rights Leadership School.
21. Completion of reports on the concept of race associated with the Race Relations policy and the history of the policy.

2.1.5. February, March and April of 1982

1. Participant observation in one school classroom by the research assistant.
2. Participant observation in the library by the principal investigator.
3. Participant observation in a second school classroom by a graduate assistant.
4. Participant observation in school events such as cabinet meetings, staff meetings, open house, school community relations meetings, parent meetings, and school activities.
5. Interviews with school personnel.
6. Attendance at professional development activities both in the project school and in the central office of the board.
7. Communication with professional staff charged with the implementation of the policy through attendance at Race Relations Committee meetings and observation of the Human Rights Leadership project at Bay Street School.
8. Project staffing.
9. Liaison with the resource group.
10. Liaison with the reference group.
11. Development of a computerized data handling and analysis system.
12. Communication with project consultants.
13. Preliminary analysis of the field notes and interview transcripts during a four-week intensive period in the school.
14. Attendance at Race Relations Committee meetings.

15. Participant observation in activities associated with Bay Street School participation as a Human Rights Leadership School.

16. Preparation and presentation of a paper at the American Educational Research Association (A.E.R.A) meetings in New York in March, 1982.

17. Attendance at the "Information Technology and the Educational Researcher" pre-session, held in conjunction with the A.E.R.A. meetings, March, 1982.

18. Discussion of the paper prepared for A.E.R.A. with school staff.

2.1.6. May to October of 1982

1. Participant observation in school events such as cabinet meetings, staff meetings, open house, school community relations meetings, parent meetings, and school activities.

2. Interviews with school personnel to discuss interpretations of data.

3. Attendance at professional development activities.

4. Communication with professional staff charged with the implementation of the policy through attendance at Race Relations Committee meetings and observation of the Human Rights Leadership project at Bay Street School.

5. Attendance at Race Relations Committee meetings.

6. Participant observation in activities associated with Bay Street School participation as a Human Rights Leadership School.

7. Project staffing.

8. Liaison with the resource group.

9. Liaison with the reference group.

10. Development of a computerized data handling and analysis system.

11. Collection and analysis of documents relevant to the Race Relations policy.

12. Communication with project consultants.

13. Preliminary analysis of the field notes and interview transcripts.

14. Preparation and presentation of papers.

2.1.7. November, 1982 to January 31, 1983

1. Participant observation in school events such as cabinet meetings, staff meetings, and other school activities.
2. Interviews with school personnel to discuss interpretations of data.
3. Attendance at professional development activities in the school.
4. Communication with professional staff charged with the implementation of the policy through attendance at Race Relations Committee meetings and observation of the Human Rights Leadership project at Bay Street School.
5. Attendance at Race Relations Committee meetings.
6. Interviews with people involved in the development of the Race Relations policy of the Toronto Board.
7. Analysis of documents prepared by the board under the auspices of the Race Relations policy.
8. Analysis of Race Relations Committee minutes and documents relevant to the minutes.
9. Participant observation with school staff in a seminar series organized by the research project team.
10. Organization of a seminar series.
11. Project staffing.
12. Liaison with the resource group.
13. Liaison with the reference group.
14. Development of a computerized data handling and analysis system.
15. Communication with project consultants.
16. Preliminary analysis of the field notes and interview transcripts.
17. Preparation and presentation of papers.

2.1.8. February, 1983 to February, 1984

1. Participant observation in school events such as staff meetings, committee meetings and other school activities.
2. Discussions with school personnel offering inter-pretations of data.
3. Attendance at professional development activities in the school.
4. Communication with professional staff charged with the implementation of the policy through attendance at Race Relations Committee meetings and observations of the Human Rights Leadership Project at Bay Street School.
5. Attendance at Race Relations Committee meetings.
6. Analysis of documents prepared by the Board under the auspices of the Race Relations policy.
7. Analysis of Race Relations Committee minutes and documents relevant to the minutes.
8. Participant observation with school staff in a seminar series organized by the research project team.
9. Organization of a seminar series.
10. Project staffing.
11. Liaison with the Resource Group.
12. Liaison with the Reference Group.
13. Development of a computerized data handling and analysis system.
14. Communication with project consultants.
15. Analysis of the field notes and interview transcripts.
16. Preparation and presentation of papers.
17. Formulation of a research proposal to continue the research work.
18. Preparation of a book manuscript on the research.

2.2. WORK IN BAY STREET SCHOOL

Field notes were made on all activities observed by the researchers at Bay Street School. For the classroom observations, notes were made following the sessions. These were then transferred to dictaphone, during which additional observations were recalled and interpretive comments added. Dicataphone notes were transferred to the computer through the word processor. For other activities, such as staff meetings, field notes were made during the session and later transferred to dictaphone and computer.

2.2.1. Participant Observation (February - April, 1981)

In the Classroom. The research assistant was a participant observer in the classroom on six occasions in April, 1981. The periods of observation were generally for one half day. Detailed field notes were kept on classroom observations, on informal conversations with the teacher, and on out-of-classroom activities with the teacher during each half day period. During the observation period, brief notes were kept. Later, usually the same day, these notes were expanded and read into a dictaphone. The dictated notes were transcribed and typed into the word processor for eventual storage in the DEC-10 computer. Identical procedures were followed for classroom observation for the periods May-July, 1981; August-October, 1981; and November 1981-January 1982.

In the Library. The principal investigator worked in a participant observer role with the teacher-librarian in the library on four occasions in April, 1981. The periods of observation were generally for one half day. His work focussed on observing the activities of the librarian as she worked with students. During the course of the project, he followed the same note-taking and recording procedure described for the research assistant in the classroom.

In the School. A summary of work in the school in the first three months is summarized in Chapter 3 under Negotiation of Entry.

2.2.2. Participant Observation (May - July, 1981)

In the Classroom. The research assistant was a participant observer in the classroom on nine occasions in May and on seven in June.

In the Library: The principal investigator continued to work in a participant observer role with the teacher-librarian, who is also the school's Affirmative Action representative and a key liaison person for the school's involvement in the Human Rights Leadership Project. The principal investigator was a participant observer in the library on three occasions in May and six in June. The periods of observation were generally for one half day. He observed the activities of the librarian as she worked with students, and collected and read documents related to the following: Affirmative Action and Race Relations policies, school staffing, communication structure of the school, and plans for the forthcoming school year. His work also included informal conversations with other school staff.

In the School: A number of other school events were judged to be significant in coming to understand the Race Relations policy in the school. When we became aware of such events, either or both the principal investigator or research assistant attended. During the second quarter of the research, participant observation occurred at the following events:

1. On May 6, 1981 M. Connelly attended, with his son, an evening Open House at the school. The event was designed to display various school activities to the parents.
2. On May 26, 1981 J. Clandinin attended a school cabinet meeting. The cabinet is made up of the chairman of each school committee. Various school issues are discussed at the meetings and decisions pertaining to the school as a whole are made.
3. On June 12, 1981 J. Clandinin and M. Connelly viewed a film on Paulo Freire's teaching methods ("Starting with Nina") with several of the staff. The film was brought in at the staff's initiative.
4. On June 13, 1981 J. Clandinin and M. Connelly attended the school's "play day", a day of outside activities for the students.

Interviews with School Personnel. A number of formal interviews with school personnel have been held. On May 4, 1981 the principal investigator and research assistant interviewed Mrs. Grace Anderson, the school Race Relations representative. Mrs. Anderson has also been appointed as one of the Curriculum Resource teachers for the 1981-1982 school year. The purposes of the interview were to discuss her role as Race Relations representative, her involvement with the development and implementation of the Race Relations policy, and her plans for her role as the Curriculum Resource teacher.

On May 15, 1981 a formal interview was held with the school principal, Mr. Phil Bingham, and one of the school vice-principals, Mrs. Elizabeth Bell. The purpose was to discuss a race-related community issue and the school's plan for the project school for next year. On May 20, 1981 a follow-up meeting with Mrs. Bell was held to discuss a current school-community issue. On May 22, 1981 a phone conversation with Mr. Bingham was held in order to keep abreast of the issue.

On May 11, 1981 the principal investigator and the research assistant held a formal interview with Ms. Cynthia Smith, the teacher-librarian. The purpose was to discuss her role as the Affirmative Action representative for the school and her plans for her role in the project school for next year.

Another interview with the principal, and the other vice-principal, Mr. Robert Collins, was held on June 4, 1981 to discuss further the ongoing community issue.

An interview with Mrs. Judy Arnold and Mrs. Grace Anderson, the two Curriculum Resource teachers for the 1981-1982 year, was held on June 5, 1981. The purpose was to discuss a school-community issue regarding the community's concerns as well as to discuss their roles as Curriculum Resource persons. On June 8, 1981 a formal interview was held with Mr. Charles Boyd, the school chairman of the School Community Relations Committee. The purpose was to discuss the community issue as well as his plans regarding the project school.

On June 10, 1981 the research assistant held a formal interview with the participating classroom teacher, Ms. Stephanie Winters.

On June 12, 1981 a formal interview with the school counsellor, Mr.

George Dodds, was held. The purpose was to follow up the community issue, to learn from him the race-related changes in the community over the past 25 years, and to discuss what he saw as his role in the project school for the next year.

On June 15, 1981 an interview with Mr. John Earl, a classroom teacher, was held. The purpose was to discuss the issues in the school from the perspective of a teacher who was leaving it.

A final interview with the school principal was held by the principal investigator on June 24, 1981. The purpose was to obtain a summary of the community issue as it stood at the end of the school term as well as to make arrangements for follow-up on the staffing issues and planning for the project school for the fall term.

2.2.3. Participant Observation (August - October, 1981)

In the Classroom. The research assistant was a participant observer in the classroom on six occasion in September and on ten in October.

In the Second Classroom. One of the graduate assistants, Mr. Claus Wittmaack, was a participant observer in a second classroom on three occasions in October. The periods of observation were generally for one half day. The second teacher had expressed an interest in becoming part of the research project; negotiation of entry began in October, 1981.

In the Library. The principal investigator was a participant observer in the library on two occasions in September and on two in October. The periods of observation were generally for one half day. As well as observing the librarian as she worked with students, he collected and read documents related to Affirmative Action and Race Relations policies, school staffing, and the communication structure of the school. Several discussions focussed on the librarian's role as part of the Curriculum Resource Team. His work included informal conversations with other school staff.

In the School. During the third quarter of the research, participant observation at the following events occurred:

1. On September 8, 1981 J. Clandinin attended an afternoon staff meeting. The purpose was to orient new teachers to the school and to get the new school year under way.

2. On September 18, 1981 M. Connelly and J. Clandinin attended a morning meeting of the Curriculum Resource team, a group of teachers released from full-time classroom teaching to spearhead the professional development activities in the school.

3. On September 23, 1981 J. Clandinin attended a Senior Division meeting sponsored by the Curriculum Resource team. The division meetings are part of the professional development of the staff.

4. On September 28, 1981 M. Connelly and J. Clandinin attended a professional development day at the school. The morning session focussed on the introductio of the inner city project to the school, the afternoon session on the decision-making structure of the school.

5. On October 7, 1981 J. Clandinin attended a grade-level meeting for grade 1 teachers. The grade meetings are sponsored by the Curriculum Resource team and are an opportunity for teachers of the same grade level to discuss common concerns.

6. On October 13, 1981 J. Clandinin and C. Wittmaack attended a school cabinet meeting. The cabinet is made up of the chairperson of each school committee. Various school issues are discussed at the meetings and decisions pertaining to the school as a whole are made.

7. On October 14, 1981 J. Clandinin attended a staff meeting. The focus of the meeting was on an evening session co-sponsored by the school staff on drug abuse.

8. On October 16, 1981 J. Clandinin attended, with her son, a play sponsored by the Toronto Board of Education for students and parents of the Toronto Board. The play dealt with the immigration policy of Canada.

9. On October 21, 1981 J. Clandinin and M. Connelly attended the second Senior Division meeting.

10. On October 27, 1981 J. Clandinin and C.Wittmaack attended an evening Open House at the school. The evening was designed to display various school activities to the parents as well as to give the school principal an opportunity to explain the inner city language project to the parents. Bay Street School is a participant school in the project.

11. On October 29, 1981 J. Clandinin attended a meeting of the Curriculum Committee of Bay Street School. The purpose was to

discuss the possibility of the Curriculum Committee taking on responsibilities associated with the Human Rights Leadership project in the school.

Interviews with School Personnel. A number of formal interviews with school personnel have been held. On September 18, 1981 M. Connelly and J. Clandinin interviewed the school principal. On October 21, 1981 a second interview was held to introduce Mr. C. Wittmaack, a graduate assistant who was joining the research project. Also present at the meeting, in addition to the project research staff, were Cynthia Smith, the teacher-librarian, Mrs. Elizabeth Bell, one of the school's vice-principals, and Mrs. Grace Anderson, the Curriculum Resource teacher and Race Relations representative.

2.2.4. Participant Observation (November, December, 1981 - January, 1982)

In the Classroom. The research assistant was a participant observer in the classroom on nine occasions in November, on five in December and on five in January.

In the Second Classroom. One of the graduate assistants, Mr. Claus Wittmaack, was a participant observer in a second classroom on six occasions in November, five in December and four in January. The periods of observation were generally for one half day. Field notes were kept on the classroom observations, on informal conversations with the teacher, and on out-of-classroom activities with the teacher during each half day period. During the observation period, brief notes were kept. Later, usually the same day, these notes were expanded and some notes transformed into narrative.

In the Library. The principal investigator was a participant observer in the library on one occasion in November, two in December and one in January, generally for one half day. He observed the librarian as she worked with students, and held informal conversations both with her and other school staff.

In the School. During the fourth quarter of the research, participant observation occurred at the following events:

1. On November 3, 1981, December 1, 1981 and January 12, 1982, J. Clandinin and M. Connelly attended school cabinet meetings. On November 17, 1981 and January 26, 1982, J. Clandinin

attended school cabinet meetings. On December 15, 1981, Claus Wittmaack attended a school cabinet meeting. The cabinet is made up of the chairperson of each school committee. Various school issues are discussed at the meetings and decisions pertaining to the school as a whole are made.

2. On November 4, 1981, M. Connelly and J. Clandinin attended two grade level metings, one for grade 1 teachers and one for grade 7 teachers. The grade meetings are sponsored by the Curriculum Resource team and are an opportunity for teachers of the same grade level to discuss common concerns.

3. On November 10, 1981, M. Connelly, J. Clandinin and C. Wittmaack attended a staff meeting for the Bay Street teachers. The purpose was to introduce the staff to the Human Rights Leadership Project and to gain their approval to have Bay Street School become a participating school.

4. On November 16, 1981, J. Clandinin, M. Connelly and C. Wittmaack attended a Bay Street Staff Meeting. The purpose was to discuss some of Dr. James Britton's work in preparation for a two-day visit to the school by Dr. Britton. Dr. Britton, an international expert in language development, had been hired by the Board to act as a consultant to inner city language project schools. Two days later, on November 18, J. Clandinin and M. Connelly attended a second staff meeting to view a film presentation of Dr. Britton's work.

5. On November 20, 1981, J. Clandinin and M. Connelly attended a professional development day for Bay Street School staff. The morning session, an area-wide session, was the staff's introduction to a Teacher Performance Review, a new observation-based evaluation of all teachers. The afternoon session, for Bay Street staff only, was a presentation by Dr. Britton. C. Wittmaack, M. Connelly and J. Clandinin attended it.

6. On November 30, 1981, J. Clandinin attended a planning meeting with staff who were most directly involved with bringing the Human Rights Leadership Project into the school.

7. On December 1, 1981, C. Wittmaack attended a follow-up meeting to the November 30, 1981 meeting. School concerns and plans were discussed with Susan Jones, a community consultant funded by the Human Rights Leadership Project.

8. On December 3, 1981 and January 12, 1982, C. Wittmaack attended meetings of the School-Community Relations Committee at Bay Street School. The purpose of the committee is to facilitate working relationships between the community and the school.

9. On January 26, 1982, J. Clandinin attended a meeting with

Cynthia Smith and Susan Jones to discuss upcoming workshops as part of the Human Rights Leadership Project.

10. On January 26, 1982, J. Clandinin attended a Primary Division meeting. On January 27, 1982, M. Connelly attended a Junior Division meeting. Division meetings are sponsored by the Curriculum Resource team and are part of the professional development of the staff.

Interviews with School Personnel. One formal interview and a number of informal interviews were held with school personnel during the fourth quarter. On January 27, 1982, J. Clandinin interviewed Stephanie Winters, one of the participating teachers, to discuss a preliminary interpretive account. On January 28, 1982, a brief discussion with Ms. Winters was held.

Informal conversations have been held with a number of school personnel. On January 15, 1982, M. Connelly raised with Robert Collins, vice-principal, the possibility of discussions that would focus on the community view of the school. It was agreed that we would pursue this interest. On January 25, 1982, M. Connelly and J. Clandinin held a brief discussion with Phil Bingham, the principal. The purpose was to be brought up to date on a number of school issues and to advise the principal that we planned to be in the school for an intensive three-week period.

Informal conversations with many teachers in the school have been an ongoing aspect of our work. As noted, field notes are kept on all such conversations.

2.2.5. Participant Observation (February - April, 1982)

In the Classroom. The research assistant was a participant observer in the classroom on four occasions in February. Other visits to the classroom were made for informal discussions with Ms. Winters and for visits with the students.

The research focus changed during the fifth quarter from intensive participant observation in this classroom to an analytic phase in which theoretical constructs were being developed.

In subsequent phases of the research, a second period of intensive participant observation may be undertaken. This change in the research focus was discussed with Ms. Winters. Detailed field notes on conversations with the teacher around negotiation of exit of this phase of the research were made. As well, detailed field notes on informal conversations and on out-of-classroom activities with the teacher have also been kept.

In the Second Classroom. C. Wittmaack was a participant observer on four occasions in February, four in March and two in April. The periods of observation were generally for one-half days. Field notes were kept as usual.

In the Library. During the fifth quarter, the role of the principal investigator working as a participant observer in the library also shifted to the analytic phase. He continued to maintain contact with the school librarian through informal conversations, visits with her, and participation with her in school activities.

In the School. During the fifth quarter of the research, participant observation occurred at the following events:

1. On April 6, 1982 and April 19, 1982, J. Clandinin attended school cabinet meetings.

2. During February, 1982, J. Clandinin and M. Connelly attended a series of meetings around the issue of community participation in Bay Street School. On February 8, 1981, M. Connelly attended a meeting of the teachers working on the School-Community Relations Committee at Bay Street School. The purpose of the Committee is to facilitate working relationships between the community and the school.

   On February 12, 1982, M. Connelly and J. Clandinin attended a staff meeting for the Bay Street teachers. The purpose was to discuss the issue of community involvement. This was a follow-up to the February 8th, 1982 School-Community Relations Committee meeting.

   On February 15, 1982, M. Connelly and J. Clandinin attended a planning session with the two parent co-chairpersons and the teacher chairperson of the School-Community Relations Committee, and with the school principal. Plans for a community meeting to be held the following evening were made.

   On February 16, 1982, M. Connelly, J. Clandinin, and C. Wittmaack participated in a community meeting attended by a large number of parents and all of the Bay Street School staff. At this meeting we were requested to keep notes of the session for the parent executive.

On February 17, 1982, M. Connelly and J.Clandinin attended a follow-up meeting to the large parent meeting. This was a meeting of the two parent co-chairpersons of the committee and concerned school personnel.

3. On February 9, 1982, M. Connelly and J. Clandinin attended a professional development session held after school for all staff on Michael Rutter's, "Fifteen Thousand Hours". This session was sponsored by the Curriculum Resource Team and was part of the professional development of the staff.

4. On February 11, 1982, J. Clandinin attended a meeting of the Staff Needs Committee. Discipline standards for the school were discussed.

5. On February 19, 1982, J. Clandinin, M. Connelly and C. Wittmaack attended a professional development day for Bay Street School staff. The morning session, described in part in Chapter 10, was a presentation of the principal's philosophy and the school's goals and an explanation of the Board's teacher performance review, a new observation-based evaluation for all teachers. The afternoon session was a presentation by Ms. Susan Jones, the Community Consultant for the Human Rights Leadership Project. The presentation was entitled "Bias in Books."

6. On February 23, 1982, J. Clandinin attended a professional development session for staff presented by the teacher-librarian, Ms. Cynthia Smith, on her work in connection with the Human Rights Leadership Project in the school.

7. On April 13, 1982, J. Clandinin attended a professional development session for staff with Susan Jones. The session was a follow-up workshop to the February 19, 1982, "Bias on Books" workshop. The session was sponsored by the Human Rights Leadership Project.

8. On April 20, 1982, J. Clandinin and M. Connelly attended a professional development session for staff, given by Susan Jones on "name calling". this session was sponsored by the Human Rights Leadership Project.

9. On April 27, 1982, J. Clandinin and M. Connelly attended a final session on the year's work on the Human Rights Leadership Project. Mr. Alex Kline and Ms. Susan Jones reviewed the recommendations of the report and consulted staff on future plans for the Project.

10. On April 27, 1982, J. Clandinin and M. Connelly attended a

meeting with Phil Bingham, school principal, Mr. Kline and Ms. Jones. The purpose was to evaluate the Human Rights Leadership Project and to make plans for the next school year.

Interviews with School Personnel. On February 1, 1982, M. Connelly and J. Clandinin had a luncheon discussion with Phil Bingham, the principal, to be brought up-to-date on school issues.

In early February, a number of sessions were held with Ellen Bodnar. These sessions were between Ms. Bodnar and Mr. Wittmaack with M. Connelly and occasionally J. Clandinin participating. These sessions were discussions around an ethical issue that had arisen in the process of the research.

A number of interviews were held with various school staff in February regarding the community issue. During the period of time of the community meetings, we sought out many teachers to discuss their involvement and concerns about the community issue.

On March 12, 1982, preliminary discussions were held with Ruchama on the paper we were preparing for the 1982 American Educational Research Association meetings in New York. On March 19, 1982, M. Connelly had preliminary discussions with the school principal on the paper.

On March 31, 1982, the paper was discussed in detail with Mr. Bingham and Robert Collins, vice-principal. Other discussions of the paper have been held with interested staff. On April 2, 1982, the paper was further discussed with Judy Arnold, Elizabeth Bell, a school vice-principal, and Mr. Bingham. The paper was again discussed with Mr. Bingham on April 15, 1982. Arrangements for a meeting to discuss the paper with staff members during the sixth quarter were made.

Informal conversations with many teachers in the school continued to be a constant aspect of our work. As noted, field notes were kept on all such conversations.

2.2.6. Participant Observation (May - October, 1982)

The focus of in-school work in the sixth and seventh quarters changed from intensive participant observation in the classrooms and in the library to discussion with school staff of interpretations emerging from data analysis. In this phase of the research, theoretical constructs are being developed. A second period of intensive participant observation may be undertaken in a subsequent phase of research.

Contact with participating teachers has been maintained through informal conversations and out-of-classroom activities. Detailed field notes on conversations and on out-of-classroom activities with the two teachers and the teacher-librarian continued to be kept.

Participant observation at other school events has continued. During the sixth and seventh quarter of the research, participant observation of the following events occurred.

1. On May 10, 1982 J. Clandinin attended a school cabinet meeting. On October ll, 1982 J. Clandinin and M. Connelly attended the first school cabinet meeting of the fall term.

2. On May 3, 1982, M. Connelly attended a staff meeting held after school for all staff with Mr. John Bates. Mr. Bates was then the Inner City Coordinator. He is now the school superintendent for Bay Street School.

3. On May 5, 1982 M. Connelly and J. Clandinin attended a Bay Street staff meeting. The purpose was to discuss the staffing plans for the upcoming school year.

4. On May 17 , 1982 J. Clandinin attended a staff meeting for the primary and junior school staff. The purpose was to discuss school-ending details.

5. On May 31, 1982 J. Clandinin briefly discussed our involvement in the school with Dr. Bill Wayson. Dr. Wayson has been hired by the Toronto Board to act as a consultant to the Inner City project schools.

6. On September 21, 1982, M. Connelly attended a meeting concerning the Human Rights Leadership Project. The purpose was to discuss Bay Street School participation as a Human Rights Leadership school in the 1982-83 school year. Mr. Alix Kline and Ms. Susan Jones were present to discuss the plans with the school.

The new community consultant, Mr. Peter Dill, was introduced to the school.

7. On September 21, 1982 M. Connelly and J. Clandinin met with Phil Bingham to discuss school plans for the new school term.

8. On October 6, 1982 J. Clandinin attended a meeting of the School-Community Relations Committee. The purpose of the Committee is to facilitate working relationships between the community and the school. One purpose of the meeting was to discuss parent and teacher cooperation in a proposed march on the Ontario Legislature to protest a proposed piece of legislation. The Toronto Board of Education has taken the position that the proposed legislation would severely restrict its ability to fund special programs.

   A second purpose of the meeting was to discuss the school Curriculum Night scheduled for October 26, 1982. A third purpose was to make arrangements for a parent meeting on October 11, 1982, to which all members of the community would be invited.

9. On October 19, 1982 J. Clandinin attended a meeting of the Curriculum Committee. The purpose was to elect a chairperson. The tasks and objectives of the Curriculum Committee are unclear for this year and a meeting has been planned to discuss them. Mr. Peter Dill, Community Consultant for the Human Rights Leadership Project, has decided to participate in school activities through this Committee.

10. On October 20, 1982 J. Clandinin attended the first Junior Division meeting of the fall term. The division meetings are sponsored by the Curriculum Resource Team and are part of the professional development of the staff. The focus of this series of division meetings was reading assessment.

11. On October 26, 1982 J. Clandinin and M. Connelly attended the school's Curriculum Night.

Interviews with School Personnel. As noted, during the sixth and seventh quarters, our attention has focussed less on in-depth school participant observation and more on analysis of the data.

As we have developed our interpretations of the data, we have shared them with the school personnel with whom we work closely.

A number of interviews have been held to discuss these interpretations. On May 3, 1982 M. Connelly and J. Clandinin met to discuss the paper prepared for the American Education Research Association with Ms. Ellen

Bodnar. On May 5, 1982, J. Clandinin and M. Connelly met with Phil Bingham, Miss Judy Arnold and Mrs. Grace Anderson to discuss the same paper. The sessions further establish the inquiry as a shared process and facilitate staff participation in opening up new areas of discussions. Other, less formal sessions have been held with a number of other staff members.

2.2.7. Participant Observation (November, December, 1982, - January, 1983)

In-school work in the eighth quarter continued to be less focussed on intensive participant observation in the classrooms and library. In this phase of the research, theoretical constructs are being developed and discussed with appropriate school personnel. These discussions occur informally as well as formally in discussions with seminar participants. School personnel have been invited to participate in the seminars. A more detailed account of their participation will be given in a later section of this chapter.

Contact with participating teachers has been maintained through informal conversations, occasional classroom visits, discussion of developing interpretations and out-of-classroom activities. Detailed field notes on these contacts with the two teachers and the teacher librarian involved in the study continue to be kept.

Participant observation at other school events has continued. During the eighth quarter of the research, participant observation of the following events occurred:

1. On November 1, 1982 J. Clandinin and M. Connelly attended a school staff meeting designated by staff as a "Think Tank". The purpose was to discuss school decision making and to decide whether an alternative approach should be adopted to it.
2. On November 2, 1982 M. Connelly and J. Clandinin attended a school cabinet meeting.
3. On November 9, 1982 M. Connelly participated in a school tour. These tours were organized by the curriculum resource team.
4. On November 9, 1982 M. Connelly and J. Clandinin attended a junior division meeting. The division meetings are sponsored by the curriculum resource team and are part of the professional development of the staff. The focus of this series of division

meetings, of which the junior division meeting was one, was math assessment. The session was presented by Mr. John Bates, School Superintendent for Bay Street School.

5. On November 9, 1982 J. Clandinin attended a project officers' meeting. This was one meeting of a regular series of meetings of the curriculum resource teachers and vice-principals of the designated project schools of the Toronto Board.

6. On November 22, 1982 J. Clandinin attended the grade meetings organized by the curriculum resource team. These meetings are part of the professional development of the staff, and provide an opportunity for teachers of each grade to meet with the curriculum resource team to discuss concerns relevant to their particular grade level. On November 25, 1982 J. Clandinin attended another round of grade meetings.

7. On December 17, 1982 and December 21, 1982 J. Clandinin participated in activities related to the Christmas celebration in the school.

8. On January 4, 1983 J. Clandinin was a participant observer in Stephanie Winter's classroom.

Interviews with School Personnel: During the eighth quarter, as we developed our interpretations of the data, we shared them with school personnel in several ways: sharing of written accounts with appropriate school personnel, participation of school staff in our continuing seminar series, and informal discussions with the staff members.

2.2.8. Participant Observation (February, 1983 - February, 1984)

In-school work in the final year followed the pattern described for the eighth quarter--development of theoretical constructs, and discussion with school personnel in the school and in seminars.

Participant observation at other school events has continued on a less frequent basis. During the final year of the research, participant observation of the following events occurred.

1. On February 22nd, 1983 J. Clandinin and M. Connelly attended a school staff meeting and a Human Rights Leadership presentation by Bay Street School staff. The purpose of the staff meeting was to discuss upcoming events. The purpose of the Human Rights Leadership presentation was to provide a final opportunity for the

staff to interact around the various school projects funded under that Project.

2. During the week March 7, 1983 to March 10, 1983 J. Clandinin was in the school to take part in a number of school activities. In addition to classroom visits and discussions with a number of staff, she attended a staff luncheon and viewed a film funded by the Human Rights Leadership Project.

3. On March 9, 1983 M. Connelly, J. Clandinin, J. Whyte, S. Kroma, and E. Enns participated in a discussion of the Human Rights Leadership pilot project with Ministry of Education personnel interested in race relations.

4. On April 27, 1983 J. Clandinin attended a Bay Street School staff meeting.

5. On May 11, 1983 and June 6, 1983 J. Clandinin was a participant observer in study group sessions with Bay Street teachers.

6. On May 30, 1983 and May 31, 1983 M. Connelly and J. Clandinin presented a professional development workshop to Bay Street School staff on project work.

7. School visits were made on February 8, 1983, March 7, 1983, March 8, 1983, March 9, 1983, March 10, 1983, April 27, 1983, May 6, 1983, May 11, 1983, May 13, 1983, June 6, 1983, June 8, 1983, June 10, 1983, June 16, 1983, June 27,1983, September 20, 1983, November 22, 1983, and December 15, 1983. The purposes of these visits were to maintain contact with ongoing school activities, to discuss project interpretations, and to visit classrooms and the school library.

Interviews with School Personnel. These continued as described for the eighth quarter.

2.3. SYSTEM-LEVEL WORK

2.3.1. Involvement at the System Level (February - April, 1981)

An account of our work at the system level is given in Chapter 3.

2.3.2. Attendance at Professional Development Activities (May - June, 1981)

During May and June, 1981 the principal investigator and research assistant attended four board-sponsored professional development activities related to the Race Relations policy, as follows:

1. On May 12, 1981 J. Clandinin attended one session of a three-session workshop series entitled "Facing the Holocaust and Ourselves, a Challenge For Today;" sponsored in part by the Race Relations Advisor. The series was an optional evening series for teachers.

2. On May 20, 1981 J. Clandinin and M. Connelly viewed the slide-tape show, "A Tale of O", with the teacher-librarian. This presentation was part of a mandatory workshop to introduce the Race Relations and Affirmative Action policies to all teachers. The staff at Bay Street School had viewed the presentation during the 1979-1980 school year.

3. On May 20, 1981 J. Clandinin and M. Connelly attended a workshop at Laurier School with Mr. Jim Kormos. The workshop included viewing of the film "Myself, Yourself" followed by staff discussion. A workshop using the film was mandatory for all school staffs during the 1980-1981 school year.

4. On June 18, 1981 J. Clandinin and M. Connelly attended a reception sponsored by the Equal Opportunity Office for all Race Relations and Affirmative Action representatives and their committees. The guest speaker was Gordon Fairweather, Chief Commissioner of the Canadian Human Rights Commission; his topic was "Human Rights in the 80's."

2.3.3. Interviews with Equal Opportunity Staff (May - July, 1981)

During the second quarter of the project, two interviews were held with Mr. Alix Kline, Race Relations Advisor, and one with Ms. Marianne George, Affirmative Action Advisor.

On June 10, 1981 an interview attended by M. Connelly, J. Clandinin and C. Smith, Bay Street School's Affirmative Action representative, was held with Ms. Marianne George. Its intent was to discuss the actions taken by the Equal Opportunity Office in the area of Affirmative Action. On June 17, 1981 M. Connelly, J. Clandinin and C. Smith met with Alix Kline to discuss the Equal Opportunity Office's actions on behalf of the Race Relations policy. At the meeting we agreed to prepare a summary of the participants' evaluations of the two series of workshops sponsored by the Equal Opportunity Office. On July 9, 1981 a follow-up interview with Mr. Kline was held. M. Connelly and J. Clandinin attended the interview. At the session we returned the summaries of the evaluation forms.

2.3.4. Interviews with Equal Opportunity Staff (August - October, 1981)

A meeting with Mr. Kline was held on October 22, 1981 at Bay Street School. M. Connelly and J. Clandinin were invited to attend as participant observers. Also present were the school principal, Ms. Cynthia Smith, teacher-librarian, and Mrs. Grace Anderson, Race Relations representative. The purpose was to discuss Bay Street School's possible participation as a Human Rights Leadership school. Bay Street was one of three schools selected in the Toronto Board to be a Human Rights Leadership school. These schools receive human and material resources, leadership, and necessary training to achieve full implementation of the recommendations of the Race Relations Report and the Report of the Status of Women.

Those present at the meeting agreed that Ms. Smith would discuss the proposal with the Curriculum committee.

2.3.5. Training Sessions for Race Relations Representatives (November, December, 1981 - January, 1982)

Alix Kline sponsored a series of four training sessions for school race relations representatives. These were led by Mr. Kline and Ms. Susan Jones. Ms. Jones is the community consultant hired by the Human Rights Leadership Project to work at Bay Street School.

M. Connelly and J. Clandinin attended the first two sessions on November 5, 1981, and November 19, 1981. At the request of Mr. Kline, only M. Connelly attended the final two sessions on December 3, 1981 and December 14, 1981. Mr. Kline indicated concern that the presence of both researchers would inhibit participating representatives.

2.3.6. Communication with Equal Opportunity Staff (November, December, 1981 - January, 1982)

Informal communication with A. Kline was maintained through our attendance at the training sessions and at the Race Relations Committee meetings of the Toronto Board of Education.

M. Connelly and J. Clandinin attended an inservice session for all Race Relations and Affirmative Action representatives sponsored by the Equal Opportunity staff on December 15, 1981.

2.3.7. Attendance at Race Relations Committee Meetings (November, December, 1981 - January, 1982)

The Race Relations Committee of the Toronto Board meets monthly to monitor the implementation of the Race Relations policy. During the fourth quarter one or more of the project team attended each meeting. On November 4, 1981 J. Clandinin and M. Connelly attended an all-afternoon session, and on January 19, 1982 E. Enns, a doctoral student with some project responsibility, attended an evening meeting.

Notes were kept on all sessions of the board meetings in the way reported earlier. This was done throughout the project.

2.3.8. Interview with Staff of the Provincial Human Rights Commission (November, December, 1981 - January, 1982)

On November 16, 1981 C. Smith arranged an interview with M. Nakamura and K. Taylor of the Human Rights Commission. M. Connelly and J. Clandinin attended it. Ms. Smith had arranged the interview in order to learn more about race relations at the provincial level and to obtain suggestions for implementation of the Human Rights Leadership Project at Bay Street School.

2.3.9. Participation in the Intermediate Observation Project (November, December, 1981 - January, 1982)

M. Connelly was invited by Dr. O. Wright to participate in an Intermediate Division Project in the Toronto Board. Dr. O. Wright is Assistant Superintendent of Curriculum Development and serves as our project liaison person with the Board.

The administrative staff and two teachers from Bay Street School were invited to participate in the project. The purpose of the project is to develop a profile of the intermediate (grade 7 and 8) level student.

2.3.10. Communication with Equal Opportunity Staff (February - April, 1982)

Informal communication with A. Kline was maintained through our attendance at the Race Relations Committee meetings. M. Connelly and J. Clandinin attended an evaluation session with the Bay Street staff for the Human Rights Leadership Project, conducted by A. Kline and Ms. Susan Jones, on April 27, 1982. Later that day we also participated in an evaluation session of the project conducted by Mr. Kline, Ms. Jones and Mr. Bingham.

2.3.11. Attendance at Race Relations Committee Meetings (February - April, 1982)

During the fifth quarter one or more of the project team·attended each meeting. On February 17, 1982, and April 6, 1982, E. Enns attended evening meetings, and on March 10, 1982, C. Wittmaack attended an evening meeting.

2.3.12. Participation in the Intermediate Observation Project (February - April, 1982)

M. Connelly continued his participation in the project, as described in the previous quarter.

2.3.13. Communication with Equal Opportunity Staff (May - October, 1982)

Informal communication with A. Kline was maintained through our attendance at the Race Relations Committee meetings and through following the Human Rights Leadership Project at Bay Street School. M. Connelly attended a session with several Bay Street staff involved with the Project on September 21, 1982. The purpose was to discuss Project plans for the year and to introduce the new community worker, Peter Dill. Mr. Kline and Ms. Jones attended the session.

Mr. Kline attended the Reference Group meeting on June 4, 1982.

On October 27, 1982, J. Clandinin, M. Connelly, S. Kroma and E. Enns met with A. Kline for three purposes: to learn his plans for the upcoming year, to discuss the follow-up interviews for the working paper on the concept of race, and to discuss the analysis of data collected at board-level meetings.

2.3.14. Attendance at Race Relations Committee Meetings (May - October, 1982)

During the sixth and seventh quarters one or more of the project team attended each committee meeting. On May 4, 1982, E. Enns attended an evening meeting and on October 11, 1982 Enns and J. Whyte attended an evening meeting.

On June 9, 1982 E. Enns attended a Board-sponsored Race Relations Forum. The implementation of the Race Relations Report was at the halfway point and the forum was held to discuss what had been done with the report, what was currently being done, and what was going to be done. The meeting was attended by a cross-section of school board staff, teachers, parents and interested community groups. There were six discussion groups: on curriculum, racial incidents, extra-curricular activities and student camps, student sensitivity and in-service opportunities, employment and promotion and race relations, and student assessment and placement. Bay Street staff participated in the forum as a project school for the Human Rights Leadership Project.

2.3.15. Communication with Equal Opportunity Staff (November, December, 1982 - January, 1983)

Informal communication with A. Kline was maintained through our attendance at the Race Relations Committee meetings, the Human Rights Leadership Project, and Mr. Kline's participation in our seminar series. Mr. Peter Dill, community worker for the Human Project, attended the "Think Tank" session for the school, and was present at the school tour on November 9, 1982.

2.3.16. Attendance at Race Relations Committee Meetings (November, December, 1982 -January, 1983

Because of the school board election and the subsequent appointment of new members to the Committee, no meetings were held in November and December, 1982. There has been one meeting of the Committee during the eighth quarter. On January 11, 1983 E. Enns and J. Whyte, doctoral students with project responsibility, attended an evening meeting of the Committee and the Advisory Council on Race Relations. The guest speaker, Dr. Beryl Banfield from the Inter-Racial Council on Children's Books, New York, gave a lecture on the Council's perspective on developing curriculum materials and teacher education and re-eduction. A brief discussion followed.

2.3.17. Communication with Equal Opportunity Staff (February, 1983 - February, 1984)

Informal communication with A. Kline continued as before. We attended a presentation by Peter Dill to the Bay Street staff on the activities funded under the Human Rights Leadership Project.

2.3.18. Attendance at Race Relations Committee Meetings (February, 1983 - February, 1984)

On February 3, 1983, April 13, 1983, September 21, 1983, October 26, 1983, and December 14, 1983, E. Enns attended the meetings of the Race Relations Committee. On February 23, 1983 and May 24, 1983, J. Whyte attended the meetings.

2.4. PROJECT STAFFING

2.4.1. February, 1981 - April, 1981

Dr. Freema Elbaz, named as a co-proposer in our original research proposal, has been unable to work on the project, as she found it necessary to remain in Montreal. Three graduate assistants were hired on a temporary part-time basis. One, Mrs. Jean Clandinin, was a doctoral student with research interests in the area of practical knowledge. Her role in the project was as an assistant in negotiation of entry and in ongoing project activities. A second doctoral student, Jim Kormos, was working on an internship in another Toronto Board school. He was involved in collecting documents on the Toronto Board generally and specifically on the Race Relations policy as it was being implemented in his host school. The third assistant, Joe Likuski, was an engineering/computing science student. He functioned as a consultant in determining the most appropriate way of setting up a computer system for data handling and analysis of textual data.

A project secretary was hired on February 1, 1981. Mrs. Ann Colond worked on the project on a half-time basis for February and March, 1981. She was involved in initial efforts to establish an appropriate computer analysis system. Mrs. Colond resigned for personal reasons at the end of March, 1981. Secretarial assistance has been provided on a temporary basis for April, 1981.

2.4.2. May, 1981 - July, 1981

Jean Clandinin was hired full-time in May, 1981, and has been involved in all aspects of the project. Mr. Kormos continued collecting documents related to the Race Relations Policy as it was being implemented in a second school. His responsibilities for the second quarter also involved collecting and analysing Toronto Board documents on the policy. A second graduate assistant, Siaka Kroma, a doctoral student, began part-time work with the project, collecting Toronto Board documents on the Race Relations Policy and analysing them for purposes of reconstructing concepts of race and racism used in the development of the policy. Mr. Likuski continued to function as consultant in aspects of the project which involved computerized data handling and analysis of textual data. He has been helpful in discussing our project needs with other researchers working on computer processing of textual data.

Two secretaries have been involved with the project since May, 1981. Mrs. Rita O'Brien has taken a training course for the Digital WT 78 Word Processor. She has been instrumental in arranging for communication with the DEC-10 computer and in working with us to adapt the list processing function of the word processor to handle data coding. Mrs. Betty Martyn has also been working on the project. Both Mrs. O'Brien and Mrs. Martyn have been typing the field notes on the WT 78; and directly into the DEC-10 via VT 100 terminals. The WT 78 is used to call up, edit and format data entered in this way.

2.4.3. August, 1981 - October, 1981

The full-time research officer, J. Clandinin, worked on a part-time basis as of Sept. 1, 1981.

In addition to collecting documents related to the Race Relations Policy as it was being implemented in a second school and collecting and analysing Toronto Board documents on the policy, Mr. Kormos prepared an historical account of its development. Mr. Kroma and Mr. Likuski continued their work as before. A fourth graduate assistant, Claus Wittmaack, began work on the project in September, 1981. Mr. Wittmaack has been involved in participant observation in a second classroom in Bay Street School.

Mrs. O'Brien and Ms. Martyn continued typing the field notes on the WT 78 work processor and directly into the DEC-10 via VT 100 terminals. Another part-time secretary familiar with text-editing on the DEC-10 inputs field notes when she is available.

2.4.4. November, 1981 - January, 1982

Project staffing and activities for the fourth quarter continued virtually unchanged. Mr. Wittmaack also assumed the responsibility of attending the Race Relations Committee meetings of the board, and a fifth doctoral student, E. Enns, also attends some meetings.

2.4.5. February, 1982 - April, 1982

Project staffing for the fifth quarter changed slightly from the previous quarter. J. Kormos and S. Kroma had completed their report on the Toronto Board's Race Relations policy, and so were no longer on staff. (Their report is included as Chapter 5 of this report.)

2.4.6. May, 1982 - October, 1982

A number of changes were made in project staffing during the sixth and seventh quarters. Jean Clandinin continued to work as a part-time research officer until September 1, 1982 when she returned to full-time work. Dr. M. Connelly worked on a full-time basis for the two summer months on project activities. Mr. Wittmaack, who has been involved in participant observation in a second classroom in Bay Street school, left the project at the end of June, 1982. Mr. Likuski's assignment during the summer months was to develop a program functional on both the Dec-10 computer and the WS 78 and Decmate word processors to facilitate analysis of the data. A complete report on his activities is included in an Appendix to Chapter 3 of this report.

E. Enns continued attending the Race Relations Committee meetings, and during the summer months, analysed data from the Every Student Survey of the Toronto Board. During the fall term, beginning September 1, 1982, Ms. Enns agreed to continue to attend the Race Relations Committee meetings and has taken on, as an added assignment, an analysis of its activities. Her analysis is included in Chapter 6 of this report. As of September 1, 1982, Mr. Kroma resumed work as a graduate assistant on the project. Mr. Kroma, who had prepared the paper on The Concept of Race included in Chapter 4 of this report, agreed to do a series of follow-up interviews to this paper. These interviews were suggested at the Reference Group meeting in June, 1982.

Ms. Jacqueline Whyte, a doctoral student, began work on the project in September, 1982. She agreed to analyse the documents being prepared under the aegis of the Race Relations policy by the Curriculum Department of the Toronto Board of Education. Her analysis is included in Chapter 6 of this report. During July and August, Marc Belaiche worked on the project, typing field notes into the word processors and into the DEC-10 via a VT 100 terminal.

and sending the edited files to the DEC-10 for computer storage. As of August 1, 1982, Ms. Betty Martyn was replaced by Mrs. Sharon Pfeifer as a project secretary. Another project secretary, Mrs. Margaret Heather, familiar with text editing on the DEC-10, has begun work on a half-time basis. She is responsible for inputting field notes into the WS 78, DECmate or directly into the DEC-10 computer.

2.4.7. October, 1982 - January, 1983

Only one change was made in project staffing during the eighth quarter. Mr. Nevat Ephraty, a doctoral student, has been involved in computer entry of project data.

2.4.8. February 1, 1983 to February 1, 1984

Project staffing for the final year remained similar to the staffing for the eighth quarter. Research staff included Jean Clandinin, (until January, 1984), Joe Likuski, Esther Enns, Jacqueline Whyte, and Siaka Kroma.

Three secretaries, Mrs. O'Brien, Mrs. Heather, and Mrs. Brenda Mignardi, have been involved in various aspects of the project. Mrs. Pfeifer was involved in project activities until June, 1983.

2.5. RESOURCE GROUP

An advisory group, designated a Resource Group, was established to act in a consultative role to the project. Its membership is as follows:

Dr. Ouida Wright, Assistant Superintendent of Curriculum and Program, Toronto Board of Education Dr. Ed Wright, Director of Research, Toronto Board of Education Mr. Phil Bingham, Principal, Bay Street School Research Project Team Members Bay Street School Staff

Consultation with the Resource Group was held on a continuous informal basis for the first three months of the project. Frequent telephone consultation occurred with both Dr. Ouida Wright and Dr. Ed Wright over the period of negotiation of entry.

There were no formal meetings of the Group in the second quarter. An informal meeting with the participating teachers, Ms. Cynthia Smith and Ms. Stephanie Winters, was held on June 8, 1981 to discuss their involvement in project activities.

There were no formal meetings of the Resource Group in the third quarter. An informal meeting with Ms. Smith was held on August 7, 1981 to discuss her involvement in project activities.

An informal meeting of the Resource Group was held on January 11, 1982 with Ms. Smith and Ms. Winters, and Al Conti, a grade 6 teacher, to discuss our involvement with the school over the first three months of 1982.

No further meetings of the Resource Group were held. In designing the study, we had intended to have meetings in order to share and discuss project concerns. However, as a result of our intensive working relationships with school staff, we have not seen any need to call meetings.

2.6. REFERENCE GROUP

In addition to the Resource Group, a Reference Group with more advisory and approval functions was formed. It included the members of the Resource Group plus the Area Superintendent of Schools for Bay Street School and the Race Relations Advisor.

There were no formal meetings of the Reference Group during the first and second quarters. Consultation occurred on an informal basis for the second quarter.

On May 27, 1981 M. Connelly and Dr. Ed Wright discussed the race-related issue in the Bay Street School community. Dr. Wright's advice on how we should proceed in connection with this issue was sought.

On July 30, 1981 copies of the first quarterly report were forwarded to Dr. Ed Wright and Dr. O. Wright. Copies of the report were given to other Reference Group members early in September, 1981.

On July 31, 1981 M. Connelly and Dr. Ed Wright discussed the quarterly report, a meeting with the Reference group, our involvement in another Toronto Board school, and our continuing involvement with Bay Street School.

A formal meeting of the Reference Group was held on October 22, 1981. Present were Dr. E. Wright, Dr. Ouida Wright, Alix Kline, Race Relations advisor; Mr. Phil Bingham, Ms. Cynthia Smith, Mrs. Grace Anderson, J. Clandinin and M. Connelly. Current project activities were discussed and advice on further activities was sought. Copies of both the first and second quarterly reports were made available to group members. Mr. Kline advised the project team of the activities of the Equal Opportunity Office and invited us to attend a series of training sessions for school Race Relations representatives. As well, we were advised of future meetings of the Board's Race Relations Committee.

On October 29, 1981 M. Connelly and J. Clandinin met with Dr. O. Wright to discuss project activities.

No formal meetings of the Reference Group were held in the fourth quarter. On November 5, 1981 M. Connelly and J. Clandinin met with Dr. E. Wright to discuss project activities and to seek his advice on some aspects of project work.

No formal meetings of the Reference Group were held in the fifth quarter. On April 5, 1982, M. Connelly and Dr. E. Wright briefly discussed project activities.

A formal meeting of the Reference Group was held in the sixth quarter on June 4, 1982. Present were Mr. Alix Kline and Dr. Ed Wright. Dr. Ouida Wright was unable to be present. School personnel present were Ms. Ellen Bodnar, Mr. Phil Bingham, Mrs. Grace Anderson, and Ms. Cynthia Smith. Project staff present were Michael Connelly, Jean Clandinin and Claus Wittmaack.

Prior to the meeting, the fourth and fifth quarterly reports were made available. Project staff had indicated that they wished to discuss the paper prepared for AERA on "Personal Practical Knowledge at Bay Street School" and the working paper prepared by Mr. Kroma and Mr. Kormos on the "History of the Race Relations Policy and the Concept of Race" included as appendices in the Fourth and Fifth Quarterly Reports. We also wanted to let the Reference Group know of our involvement in the school and to outline our plans for the next year.

As a follow-up to that meeting, Mr. Kroma has been asked to interview Alix Kline and other Toronto Board personnel to discuss the paper on "The Concept of Race".

We also advised the Bay Street Staff that they would be invited to attend a series of seminars conducted by consultants working in areas related to our work.

In September, 1982, M. Connelly and Dr. Ed Wright held a telephone conversation to discuss the departure of Mr. Claus Wittmaack from project activities.

There were no meetings of the Reference Group during the eighth quarter. However, we had frequent contact with its members through activities surrounding the document analysis, through informal interviews, and through their participation in our seminar series.

In December, 1982, M. Connelly sought the advice of Dr. Ed. Wright and a member of our Reference Group about Mr. Siaka Kroma's follow-up interviews. A brief discussion concerning our work in Bay Street School was also held.

On November 4, 1982 M. Connelly met with Dr. Ouida Wright to discuss J. Whyte's involvement in the analysis of curriculum materials.

Dr. E. Wright attended several of our seminar discussions. John Bates, School Superintendent for Bay Street School, and Alix Kline, Race Relations Advisor, also participated in these discussions.

There was one meeting of the Reference Group during the final year of the study, on March 9, 1983. Present were all research project members, school project members, Dr. E. Wright, John Bates, and Alix Kline.

2.7. DATA HANDLING AND DATA ANALYSIS

General project activities were undertaken to establish feasible means of handling and analysing the large quantities of textual data generated by a study based on participant observation, interviews and policy documents. In February, 1981, Joe Likuski was hired part-time to act as a consultant in exploring computer capability and understanding project requirements in this area.

A series of small seminars with the student and the project team was undertaken in the months February to April, 1981. These discussions were often in consultation with Computer Services personnel at OISE, particularly Drs. Richard Wolfe, Merlin Wahlstrom and Ron Ragsdale. As well, consultation was held with library personnel over the library use of computers for bibliographic work. The intent of these meetings was to explore the possible adaption of systems designed for other social sciences and the humanities. An ERIC search for information on systems in place was undertaken.

In consultation with Mr. Likuski, additional ways to handle textual data were explored. At his suggestion, discussions with Digital personnel were undertaken. He had advised us to explore the possibility of leasing a Digital Word Processor for inputting our data into the DEC-10 computer system. In consultation with Digital personnel it was agreed that a Digital Word Processor WPS 78 might satisfy our project needs. The WPS 78 was taken on a trial basis.

Information was obtained relating to the Canadian Colloquium on the Computer Processing of Textual Data, held in conjunction with the Learned Societies meetings in Halifax, Nova Scotia, May, 1981. It was decided that Mr. Likuski would be able to discuss our computer needs with other researchers, and as a consequence, he attended the Colloquium. Through Mr. Likuski's participation in the Colloquium we learned of the Oxford Concordance Programme. We contacted the developers of the Programme and requested a copy of the implementation manual to ascertain whether the programme would be suitable for our needs.

In consultation with personnel at Digital and computer specialists working with the DEC-10 at OISE, we made plans to acquire a software program that would allow communication between the DEC-10 and the word processor. As well, preliminary investigations into the possibility of using a VT 100 for inputting data were undertaken. Explorations of the possibility of using the list processing functions of the WPS 78 for coding whole sets of field notes as well as coding segments of field notes were also conducted. In June, 1981, in a final consultation with Dr. Richard Wolfe, head of computer services at OISE, it was agreed we would lease the WPS 78 from Digital.

The field notes and interview transcripts are now being fed into the DEC-10 computer system through the WPS 78.

We acquired the software program to allow communication between the DEC-10 and the word processor, and the project team began to input data directly into the DEC-l0 computer via a VT l00. Data were then called up to the WPS 78 for formatting and some analysis.

During the fourth quarter, project staff, in consultation with J. Likuski, began to explore the most feasible ways of handling the coding of our textual data. The possibility of adapting various word processor functions in conjunction with the search capabilities of the DEC-10 computer were investigated.

On March 18 and 19, 1982, Mrs. Rita O'Brien attended one of the 1982 AERA Research Training pre-sessions entitled "Information Technology and the Educational Researcher". The session, organized by Dr. Michael Scriven, University of San Francisco, was designed to acquaint academics with word processing for research and academic uses.

On April 26, 1982, a meeting was held with representatives from Digital. Based on her information from the AERA session, Mrs. O'Brien was advised that we upgrade our present word processor to the DECmate I. This was discussed with the Digital staff and arrangements were made to upgrade our equipment as proposed.

Mr. Likuski spent an intensive period during July and August 1982 writing a computer program that would meet project requirements. Our experience in preparing the paper for the 1982 AERA meeting led us to specify in detail the requirements of the program. Mr. Likuski undertook to write a program that would meet these demands, completing it in the final year of the project. An account of his work is appended to Chapter 3 of this report.

2.8. DOCUMENT COLLECTION AND ANALYSIS

2.8.1. May, 1981 - July, 1981

One of the continuing tasks in the project has been the collection and analysis of documents pertaining to the Race Relations policy of the Toronto Board. The principal investigator and research assistant collected relevant documents at the school. As well, Mr. Jim Kormos, the graduate assistant working in another Toronto Board school, collected relevant school-level documents pertinent to the policy. Mr. Kormos and Siaka Kroma were hired part-time to collect and analyse system-level documents. The following is a summary of their work:

1. Documents available in the Toronto Board of Education Archives pertaining to Race Relations were examined and a list of the materials was made. Photocopies of documents judged most pertinent were taken.
2. An inventory of all documents collected during the project field work was made.
3. Discussions with John Brown, an OISE doctoral student in Educational Administration, whose dissertation focusses on the development of the Race Relations policy, were held during a project meeting. Mr. Brown agreed to share the transcripts of interviews he had conducted with the developers of the policy. A summary of the key interview was made.
4. Copies of relevant board minutes of the Toronto Board of Education were made. Board minutes making reference to Race Relations, Affirmative Action and/or the Equal Opportunity Office were considered relevant.
5. Preliminary analysis of the collected documents was done.
6. Support documents and briefs prepared for the Race Relations Report by any Circle and Bay Street School staffs were located. (Circle School was the first school considered for the study.)

7. Evaluations done by participants in two workshop series sponsored by the Equal Opportunity Office were analysed.

During August and September, 1981 Mr. Kroma analysed Toronto Board documents on the Race Relations Policy with a view to reconstructing the concept of race and racism used in its development. The draft material was the focus of project team meetings in September, 1981. Mr. Kormos was preparing an historical account of the development of the Race Relations policy. The account is now in draft form pending discussion with other project team members.

2.8.2. November, 1981 - January, 1982

As noted above, the principal investigator and research assistant collected relevant documents at the school. Mr. Kroma's final report was prepared, and is included in Chapter 5 of this report. Mr. Jim Kormos' historical account of the development of the Race Relations policy was completed, and is also included in Chapter 5.

2.8.3. February, 1982 - April, 1982

The principal investigator and research assistant continued to collect relevant documents at the school. This document collection continued throughout the time of the project. As well, documents pertaining to the Race Relations Policy that are issued from the Equal Opportunity office or from the Committee on Race Relations were collected. These documents were to be used in data analysis.

2.8.4. May, 1982 - October, 1982

Documents pertaining to the Race Relations policy that are issued from the Equal Opportunity Office and from the Race Relations Committee were being analysed by E. Enns. Curriculum documents prepared under the aegis of the Race Relations Policy were being collected and analysed by Ms. Jacqueline Whyte.

2.8.5. November, 1982 - January, 1983

E. Enns had collected the following documents:

1. From the Toronto Board of Education archives: agendas and minutes for all meetings of the Race Relations and Multiculturalism committee and of the Committee on Race Relations since 1978. All supporting documents for the agendas were also collected.
2. Field notes of the Race Relations Committee meetings held since January 19, 1982.

The purpose in analysing the committee documents is to track the activities of the Race Relations Committee with respect to its monitoring of the implementation of the Race Relations report. The following analytic questions have been developed to complete this task: (a) What motions are being carried in the SCRR? (b) Who initiated the idea behind a particular motion? (c) What is the goal of the motion and what part of the Race Relations Report does it respond to? (d) What sort of discussion surrounded the making of a particular motion? (e) What further action is taken once a motion has been passed? The purpose of the analysis is to yield insight into the board's implementation of the Race Relation policy. A report of the analysis is included in Chapter 6 of this report.

Curriculum documents prepared under the aegis of the Race Relations policy were collected and analysed by J. Whyte. The Toronto Board policy document made 119 recommendations for the implementation of the policy. Among its concerns were the reviewing of curriculum materials for racial/ethnic bias (item 1), the preparation of criteria to determine racial/ethnic bias, with a view to formulating purchasing policy (item 7), and the provision of appropriate material on visible and ethnic minorities in Canada for integration into the curriculum (item 11).

J. Whyte examined curriculum materials, identifying those which relate to the concerns of the research project and obtaining copies from the relevant subject matter divisions. These materials were being examined for (a) statements of intent, (b) items produced in response to these, and (c) the relationship between the statement of intent and the curriculum materials developed. Whyte identified three types of relevant materials:

1. *Curriculum Ideas for Teachers.* These are supplementary curriculum materials prepared for use by the teacher. The documents offer approaches to curriculum planning which may be used to achieve objectives set out in the Ministry guidelines. In the documents examined, teachers are encouraged to view the child's culture positively. Ideas for providing students with opportunities to sample each other's culture are presented. One suggestion was for a lesson centred on the preparation of foods from various cultures. Ideas are also presented for the development of units focussing on the history of the arrival of various ethnic groups in Canada, changes which occurred in the culture, and contributions made by the group to Canada.

2. *Reports of Analyses of Books Used in the Public Schools.* The Toronto Board initiated a review of curriculum materials in use in the schools In order to identify those that either (a) reflected a positive and creative attitude toward Canadian pluralism or (b) contained culturally and racially biased content (*An Analysis of Music Books in Toronto Public Schools*, 1976, by Brenken, Gersman, Ralley, Stewart). These reports discuss criteria used in the analyses and positive attitudes and biases found in the curriculum materials.

3. *Literature of other countries.* A selection of West Indian reading materials entitled *Pepperpot* was prepared by the Language Study Centre for use with students. It contains selections (both teacher-produced and published) along with comprehension questions and suggestions for language activities. The publication was developed in response to the need for culturally diverse materials, and is an attempt to use the experiences of the child who may be unfamiliar with Canadian cultural concepts. (*Pepperpot*: Language Study Centre, Toronto Board of Education).

Other curriculum materials in the subject matter areas of English as a Second Language, Heritage Language, community relations, mathematics, and science were identified and examined. A report of this analysis is included in Chapter 6 of this report.

2.8.6. February, 1983 - February, 1984

Collection and analysis of documents continued as outlined for earlier periods of the study.

2.9. CONSULTANTS

2.9.1. February 1, 1981 - April, 1981

There has been written communication with both external consultants, Dr. J.J. Schwab and Dr. Lou Smith. Dr. Schwab has been consulted regarding appropriate theoretical material that would be useful in the conceptual stages of the project. Dr. Schwab recommended contact with Dr. Lee Shulman at the Michigan Institute for Research on Teaching. Dr. Shulman was helpful in providing possible sources of theoretical material. Dr. Smith, consulted for advice on methodological issues, suggested a possible source of advice for computer analysis of qualitative data.

Dr. Chris Clark of the Institute for Research on Teaching (Michigan) was invited to offer a critical discussion at a presentation of the project work at the Canadian Society for Studies in Education meeting in June, 1981.

Both internal OISE consultants, Dr. D. Hunt and Dr. M. Fullan, were involved in informal consultations on the beginning stages of the research.

2.9.2. May, 1981 - July, 1981

Several sessions have been held with Dr. Miriam Ben-Peretz, of Haifa University. The focus was on methodological issues and, more specifically, on what we have called a "mini-project" on professional development and knowledge transmission. Dr. Ben-Peretz was at OISE for the summer months. Dr. Pinchas Tamir, of Hebrew University, spent one day in consultation on the project. His contribution was in a consulting role on the professional development and knowledge transmission project. Dr. Roger Simon of OISE has also been involved with the project on a consulting basis, focussing on methodological issues in qualitative research.

Dr. Chris Clark offered a critical discussion at a presentation of the project work at the Canadian Society for Studies in Education meeting in June, 1981.

Dr. D. Hunt of OISE was involved in a discussion of methodological issues in May, 1981, and subsequently forwarded several related papers.

On July 30, 1981 copies of the first quarterly report were forwarded to Dr. D. Hunt and Dr. M. Fullan.

2.9.3. August, 1981 - October, 1981

Several sessions with Dr. Ben-Peretz were held in August, 1981. Their focus continued to be methodological issues and the "mini-project" on professional development and knowledge transmission.

Dr. Bill Pinar of the University of Rochester worked in a consulting role on the project on August 5, 1981. The focus of the session was on methodological issues in the use of journals in qualitative research.

On October 28, 1981 Dr. Madeline Grumet of Hobart & Wm. Smith College met with the project team to discuss its work. She offered methodological suggestions in the use of autobiography in the study of practical knowledge.

2.9.4. November, 1981 - January, 1982

There was no formal communication with project consultants during the fourth quarter.

2.9.5. February, 1982 - April, 1982

Dr. R. Simon agreed to present our paper at the AERA meetings in New York, March, 1982. Both prior to and after the presentation, several consultative sessions were held with Dr. Simon.

Plans were made to invite Dr. J. Britton to work with us as a consultant in November, 1982.

2.9.6. May, 1982 - October, 1982

Several meetings with Dr. Ben-Peretz occurred during late July and early August, 1982. Dr. Ben-Peretz has agreed to assist in preparation of a paper for a possible symposium during the April, 1983 AERA meetings.

In July, 1982 Dr. Schwab sent a series of written comments on the paper prepared for the 1982 AERA meetings on "Personal Practical Knowledge at Bay Street School".

On July 29, 1982 Dr. Margaret Yonnemura, of the State University of New York, who has been working in the area of teacher-teacher dialogue, offered a one-day seminar. School staff were invited to attend. Present from the school were Ms. Cynthia Smith, Al Conti, Mrs. Ruchama Stein, Phil Bingham, Robert Collins, Miss Judy Arnold, Mrs. Grace Anderson and Mrs. Rita Moran.

On July 30, 1982 Dr. John Eisenberg, of OISE's History and Philosophy Department, reacted to our paper on "Personal Practical Knowledge at Bay Street School". Dr. Ben-Peretz participated in this session as well.

On October 8, 1982 Dr. Ian Westbury of the University of Illinois acted as a consultant to our project. We discussed our developing concepts of personal practical knowledge with Dr. Westbury.

2.9.7. November, 1982 - January, 1983

Considerable use of consultants occurred during the eighth quarter. Experts in a number of academic fields were asked to respond to our developing theoretical constructs in the area of personal practical knowledge. Researchers whose areas of study and academic interest in some way informs our own have been consulted. We have invited participation from philosophers, methodologists, linguists and language professionals, psychologists, and researchers working in classrooms and in schools generally.

Consultants were asked to participate in our work in a number of ways. We asked for their response to our developing constructs. We also asked them to present a formal seminar on their research work, and then participate in a discussion of how their work can be seen to inform ours.

On November 10, 1982 Dr. Freema Elbaz, Faculty of Education, University of Sherbrooke, worked with us. Dr. Elbaz recently published a book on the practical knowledge of teachers, and her comments were both substantive and methodological.

On November 23 and November 24, 1982 Dr. Bruce Joyce, who has done extensive research work with teachers, offered us his comments based on his understanding of schools. As he has recently become interested in anthropological research, his comments on our methodology were particularly useful.

On November 29 and November 30,1982, Professor James Britton, Professor Emeritus, University of London, England, worked with us. Dr. Britton has been involved with the language project schools of the Toronto Board and was therefore interested in discussing his work in Bay Street School with us. For part of the time we spent with Dr. Britton, the participating members of the Bay Street School staff joined us in a discussion of current activities at the school.

On December 15, 1982 Dr. David Cohen of Macquarie University, who had recently completed a large-scale study of decision-making in Australia, visited OISE on sabbatical and became interested in discussing our work.

On January 12, 1983 Dr. Vernon Howard of Harvard University worked with us. Dr. Howard had recently written a book, *Artistry: The Work of Artists*, and has done considerable work in the area of practical knowledge and artistry. He responded to our developing constructs of personal practical knowledge.

On January 18, 1983 Professor M. Amarel, Visiting Professor at Stanford University, participated in our work. She completed a study several years ago on teachers' understandings, and more recently has worked on a long-term case study with children learning how to read.

On December 15, 1982 Siaka Kroma, one of the doctoral students with project responsibility, worked with Dr. Douglas Barnes at Queen's University. Dr. Barnes is author of *From Communication to Curriculum*. Mr. Kroma attended his lecture on the topic, "Classroom Communication: Teacher Perspectives". The decision to have Mr. Kroma attend the seminar was motivated by our interest in the language aspects of personal practical knowledge.

Dr. Manfred Lang of IPN in Kiel, Germany, on sabbatical leave at OISE, made arrangements to participate in current project activities.

2.9.8. February 1, 1983 to February 1, 1984

Considerable use of consultants occured during the final year.

On February 2, 1983 Dr. David Hunt and Nancy Watson, OISE, worked with us. They have been involved in a multi-year project on teachers' personal constructs.

On February 16, 1983 Dr. Mark Johnson of the Philosophy Department at the University of Southern Illinois at Carbondale consulted with us. Dr. Johnson, a philosopher, recently completed a book with Dr. Lakoff entitled *Metaphors We Live By*. We also consulted Dr. Johnson regarding constructs developed in our work and summarized in Chapters 10, 11 and 12 of this report.

On February 21, 1983 Dr. Jesse Roderick, University of Maryland, worked with us. Dr. Roderick has conducted participant observation and journal work with teachers.

On March 2, 1983 Dr. Arye Perlberg of the Technion worked with us. Dr. Perlberg works with teachers in self-confrontation, using video techniques.

On March 16 and March 17, 1983 Dr. Elliot Eisner, Stanford University, consulted with project staff, spoke to our project seminar, and presented a formal open lecture to educators, sponsored in part by the Practical Knowledge project.

On April 8, 1983 Dr. Maxine Green of Teachers College, Columbia, worked with us on our constructs of practical knowledge. She presented a formal seminar and commented on our constructs of practical knowledge.

On July 21, 1983 Dr. L. Shulman and J. Shulman from Stanford University and the Far West Lab respectively, offered comment on our developing constructs and responded to our interpretive accounts.

On July 25, 1983 Dr. Grace Pung Guthrie, visiting scholar at the Ontario Institute for Studies in Education, commented on methodological issues in our work.

Consultative work with Dr. J.J. Schwab continued throughout the final year of the project. Dr. Schwab has responded to a number of our papers.

Dr. Ben-Peretz has been closely involved in project activities as a consultant. She co-authored a paper for the 1984 AERA meetings.

2.10. PROJECT MEETINGS

As the number of graduate students involved in data analysis increased, project meetings were scheduled to discuss their current projects. These meetings were held when it became important to discuss assignments.

2.11. THE SEMINAR GROUP

2.11.1. February, 1981 - April, 1981

A seminar group of four graduate students under the leadership of the principal investigator was formed in January, 1981. The focus of the seminar was to read different theoretical sources that would be a useful backdrop for the problem of conceptualizing teachers' practical knowledge. The readings served as the focus of weekly group discussions on practical knowledge. It was anticipated that the external and internal consultants would serve as resources to the group. Other OISE faculty and visiting scholars would be asked to attend the seminar on an occasional basis.

2.11.2. May, 1981 - July, 1981

The seminar group continued during May and June, 1981. The focus of the seminar for May and early June was on preparation of materials for the presentation of project work at the Canadian Society for Studies in Education (CSSE) meeting in June, 1981. The papers dealt both with ongoing project work and relevant methodological issues.

The seminar group continued to meet on a less regular basis during the summer. The meetings in June and July, 1981 dealt with the following: collection and analysis of documents; a review of professional development workshops offered by the Toronto Board in conjunction with the Race Relations Policy; a mini-project focussed on professional development and knowledge transmission and methodological issues. The general purpose of the mini-project is to conceptualize the functions of professional development in practical knowledge terms. Specifically, its purpose is to reconstruct key participants' views on the relationship between professional development activities sponsored by the Equal Opportunity Office and the Affirmative Action and Race Relations Policies of the Toronto Board of Education.

Consultants to the project were used in conjunction with the seminar for the summer months. The project data were used as a focus for discussing both methodological and substantive issues.

2.11.3. August, 1981 - October, 1981

The seminar group continued to meet in early August, September and October. The meetings in August focussed on preparation of a working paper on professional development and knowledge transmission as well as on methodological issues. On September 15, 1981 the group met to discuss plans for the fall with respect to seminar members' participation in the schools, data analysis, and theoretical readings.

On September 18, 1981 the seminar group met to discuss the historical account of the development of the Race Relations policy as well as early participant observation in Bay Street School. On September 25, 1981 the focus of the group was on draft reports of both the historical account and the concepts of race.

On October 2, 1981 the group met to plan our session with M. Grumet as well as to discuss ongoing participant observation in the school. On October 16, 1981 the group met to discuss Mr. C. Wittmaack's entry into Bay Street School as a participant observer and to discuss project activities.

2.11.4. November, 1981 - January, 1982

The seminar group continued to meet in November, December and January. On November 12 and November 13, 1981 project meetings were held, focussed on discussing school events for preliminary data analysis. On November 13, 1981, Dr. R. Butt from McGill University met to discuss his related research with the project team. It was agreed that a further session with Dr. Butt would be useful.

On December 4, 1981 the group met to discuss Dr. Ben-Peretz's future involvement with the project. On January 15, 1982 the group met to consider the possibility of preparing a working paper on the community view of the school.

2.11.5. February, 1982 - April, 1982

There were no meetings of the seminar group during the fifth quarter.

2.11.6. May, 1982 - October, 1982

A seminar series has been planned to make use of expert consulting assistance during the interpretive phase of the project. The consultants are being asked to present seminars to a small group of project staff, interested school staff, and a few invited guests from OISE. As well, they are being asked to respond to the theoretical constructs of personal practical knowledge.

2.11.7. November, 1982 - April, 1983

The seminar series was undertaken. The consultants were asked to present seminars to a small group of project staff, interested school staff, and invited guests from OISE, the Ontario Ministry of Education and the teachers' federations. In conjunction with this series, a course for doctoral students interested in formulating dissertations in the area of personal practical knowledge was being offered.

2.12. PRELIMINARY DATA ANALYSIS

2.12.1. The Working Paper Series

Preliminary, tentative analysis of some of the data was undertaken in response to the need to prepare a presentation for the CSSE meetings in June, 1981. Additional impetus to begin some data analysis was provided in the summer months when both the research assistant, J. Clandinin, and Dr. M. Ben-Peretz were available.

A decision to undertake a series of working papers was made in July,

1981. These were intended to focus on some aspects of the general purposes of the study by either an in-depth analysis of a key series of events such as *negotiation of entry* or by development of a theme suggested by our field work, such as *knowledge transmission* and *professional development*.

The first working paper, prepared in part for the CSSE meetings, focussed on a preliminary analysis of our early work in negotiation of entry. The second focussed on a conceptualization of the functions of professional development in practical knowledge terms. A third working paper, including a section on the history of the development of the Race Relations policy and a section on the concept of race and racism used in developing the policy, was prepared.

2.12.2. The "Theoretical Memo" Sessions

On November 6, 9, 12, 13, M.Connelly and J. Clandinin held several lengthy sessions to discuss various aspects of project work.

During the last week of January, 1982 and extending into February, 1982, J. Clandinin and M. Connelly worked in Bay Street School on a daily basis. We were assigned a working space in the school. There were a number of purposes for these sessions: (a) our intensive work in the school allowed us to become an integral part of the school community; (b) we were able to focus our attention on project work and to establish, in our minds, on which school activities we wanted to focus; and (c) we began to formulate areas in which we would develop working papers.

2.12.3. Preparation of Papers

In May, 1982, Dr. M. Connelly was invited to participate in a workshop sponsored by the British Columbia Department of Education, Implementation Branch. A paper which dealt with the concept of implementation from the perspective of personal practical knowledge was prepared, focussing on Bay Street School as a school in an implementation setting. Adopting the perspective of personal practical knowledge, the paper addressed issues arising from the notion of implementation.

In the spring term, 1982, Dr. M. Connelly was asked to direct a project on "Curriculum in the Eighties" for the Ontario Teachers' Federation. In connection with this paper, project members worked out notions for teacher in-service and professional development from the personal practical knowledge perspective.

On June 14 and 15, J. Clandinin met with the Faculty of Education, Pedagogy Group, at the University of Sherbrooke in Quebec. The papers presented at that session focussed on the concept of image and on the concept of school rhythms as a "minded practice", one of the concepts of practical knowledge.

On July 14, 1982, M. Connelly, J. Clandinin and Phil Bingham prepared a presentation for a program offered by OISE's Department of Educational Administration, designed for provincial education administrators. Our presentation dealt with negotiation of entry to the Toronto School Board and to Bay Street School, the concepts of personal practical knowledge as developed in the paper on "Personal Practical Knowledge at Bay Street School", and Phil Bingham's reaction to our participation in the school.

In March, 1983 at the AERA meetings in Montreal, the project organized a research symposium on practical knowledge. Other symposium participants in addition to M. Connelly and J. Clandinin were Marianne Amarel, Dr. Edward Chittenden, Dr. Ron Wiegerink, Dr. John Pelosi, and Dr. Miriam Ben-Peretz. The symposium chair was Dr. Bruce Joyce, San Francisco State University. Symposium discussants were Dr. Lou Smith, Washington State University, and Dr. John Eisenberg, OISE.

In June, 1983 Dr. Michael Connelly presented a seminar on personal practical knowledge to the Faculty of Education, University of Alberta.

In July, 1983 M. Connelly, J. Clandinin and Phil Bingham, principal of Bay Street School, presented a seminar to the principals' course at York University. The focus was on the research project from the perspectives of the researcher and the school participant.

In October, 1983 J. Clandinin attended the first International

Symposium on Teacher Thinking at Tilburg University in the Netherlands. A paper on the construct of image and narrative unity was presented. This paper is included as Chapter 11 of this report.

In March, 1984, we were invited to present a paper at the Curriculum in the Making conference at Haifa University. We agreed to have Dr. Miriam Ben-Peretz read our paper on "Rhythms and Cycles as part of Personal Practical Knowledge." This paper is included as Chapter 12 of this report.

In April, 1984 Dr. Ben-Peretz presented a paper on consultants' personal practical knowledge at the AERA meetings in New Orleans.

M. Connelly and J. Clandinin were invited to co-author a paper on our research project for the 1985 yearbook of the National Society for the Study in Education. A copy of the paper is included as Chapter 13 of this report.

In June, 1984 M. Connelly and J. Clandinin were invited to prepare the keynote address for the Canadian Association for Curriculum Studies Invitational Conference. This paper will focus on research traditions of looking at schools.

In addition, we have begun to prepare a book manuscript that will present an account of the research on personal practical knowledge.

2.13. OTHER PERTINENT INFORMATION

Activities in the final months of the research project included the establishment of a computer communication system between the University of Calgary and OISE. Computer communications have been made necessary by J. Clandinin's appointment to the Faculty of Education at the University of Calgary.

We have also been involved in the preparation of this final report and in deliberations involved in undertaking a new research initiative at Bay Street School. The Social Sciences and Humanities Research Council of Canada has agreed to fund this project for the three-year period beginning in April, 1984.

Chapter 3

METHODOLOGY

3.1. SETTING OF THE STUDY

The six research purposes described in Chapter 1 have been pursued through a three-year study of the staff in one Toronto school in which the Toronto Board of Education policies on race and ethnic relations and inner city language development apply. The Toronto Board is a large urban board located in the centre of a metropolitan area. The area served includes a wide range of socio-economic categories and racial/ethnic groups. More than half of its students come from homes where English is not the first language; over 80 first languages are spoken in their homes.

The Board is governed by trustees elected from 11 wards, 2 from each, and by 4 trustees who represent the interests of the Roman Catholic secondary school students. There are 120 elementary schools, Junior Kindergarten to Grade 8, and 40 secondary schools. At the elementary level there are 2,450 teachers, and at the secondary level, 2,270. The total September 1982 enrolment was 78,052 students, 43,052 elementary and 35,000 secondary. Of the total number of students, one-half were members of immigrant families and spoke English as a second language.

The policy focus for the study is the Race Relations Policy of the Toronto Board of Education. The recommendations of the policy relate to ethnic relations and the curriculum, placement and assessment practices, ethnic and racial incidents within the schools, extra-curricular activities, employment and promotion, equal opportunity programming and responsibilities of other levels of government. A subcommittee of the Toronto Board was established in order to make recommendations on specific actions that the Board and its teaching staff could undertake to combat the spread of racism.

The study was designed so that the first two years were devoted to intensive observation and data collection and the third primarily to formal writing. The report of the study emphasizes concentrated work in one school, Bay Street School, with the principal, two teachers, and the school librarian. (The names of the school and its staff members are all pseudonyms.) Schools associated with the study are classified as Level 1A schools by the Toronto Board. These are specified as the most "inner city" of all Toronto schools as defined by a set of criteria which includes racial composition and socio-economic status of the community. Bay Street School was classified a Level 1A school.

The project was organized with a liaison person from the Curriculum Division of the Toronto Board, an Advisory Committee consisting of participating personnel within the schools, and a Reference Committee consisting of the Advisory Committee supplemented by board administrative, research, and central curriculum staff.

3.2. PROBLEM AREAS

Although the study has been designed from the point of view of the staff rather than policy implementation, both the system level and the school level constitute the problem areas examined in the study. The problems of translating policy into practice occur at both these levels. At the level of the school system, the task consists in identifying personnel and materials relevant to the policy context for teachers. The second problem is establishing collaborative working relations with selected practitioners in the school. Our most intensive and extended work has taken place with the teachers; many of the methodological considerations noted in this chapter refer specifically to this work. At the system level, our working relations have been regular but neither as intensive nor as extended as with the teachers.

These problem areas have been dealt with in the context of a single case study: only one school board has been studied. In the spirit of case study work, we make no claims about the sampling generalizability of our findings, although we do claim generalizability for the constructs of personal practical knowledge and its relationship to policy.

As noted earlier, the study focusses on Board policies on race relations and inner city language development. These policies have ramifications for the development of curriculum materials, workshops, conferences, circulated documents, invited academic experts, speakers, and the like.

3.2.1. Monitoring the Policy Environment (Problem Area 1)

In order to conceptualize the policy environment and to establish the knowledge context within which teachers work, we have monitored policy at several levels within the Toronto system. We have undertaken the monitoring with a preliminary framework but with the purpose in mind of elaborating and conceptualizing its character. Some of the knowledge sources are the same for all personnel; in other cases they will be different. Policy statements, for example, vary in Ontario school systems depending on the level. Trustees specify broad objectives and policy on race relations, administrative personnel prepare more detailed plans, and consultants, co-ordinators and teachers may or may not draft specific statements applying to their particular jurisdications. Textbooks, on the other hand, will be more common throughout the system.

We have identified print sources, such as minutes of meetings, which have been independently analysed as further indication of the policy context for the teachers' work. Interviews have been conducted frequently during each year of the project, thereby giving a sense of the "ebb and flow" of the policy environment. The effect of this monitoring process is to give an account of the policy environment in which teachers work.

3.2.2. Working with Teacher (Problem Area 2)

Our most intensive work has been with teachers. We have adopted a variety of methodologies to aid in our work of conceptualizing personal practical knowledge in the area of ethnic relations. Our methodologies have developed as the study proceeded. The following emerged as principal ones.

Field Notes. Field notes have been recorded on paper and on dictaphone. In some cases notes were made on the spot, for example, during certain interviews, classroom sessions and planning sessions. In other cases, notes were dictated during travel from the school or during post mortem and other informal sessions with teacher-participants. This phase of record-keeping began during the first stages of negotiated entry.

Interpretive Accounts. Our reflections and preliminary interpretations of our work with teachers were recorded in brief interpretive accounts. All these accounts were shared and discussed with the participants.

Participant Observation. Just as the teachers were participants in our research, we participated in their classroom work and in the full range of their interactions with the Toronto Board of Education policies on race relations and inner city language development.

Interviews. Interviews were a major data source. Long, intensive interviews of benefit to both researchers and participants were held. We found that participants wanted these interviews when they believed that the researchers' interest in their problems was genuine and when they had benefited from the interpretive accounts discussed above.

3.3. RESEARCH CRITERIA

The various criteria which were applied to the two problem areas described in Section 2 are discussed below in summary form.

3.3.1. Negotiation of Entry and Exit.

Hunt (1980) describes a collaborative process in which researchers negotiate working with teachers. This process contrasts sharply with the more traditional view of researchers gaining entry to schools suggested by Carter (1979) and Bush (1978). MacDonald (1977) discusses negotiation of entry issues under three headings: the context of the study, the study process, and outcomes of the study. Issues of negotiation of exit centre on the needs of the researcher (a phase of intensive school participation followed by a phase of conceptualization) and the needs of the school participants. In keeping with these methodological principles, entry to and exit from the school system in this study was a fully negotiated process in which all parties participated and from which everyone benefited.

The process of negotiation of entry and exit was a central concern of the study. It took about of six months to negotiate entry through the thicket of Board committees and personnel, and to obtain school and classroom acceptance. Our entry was accomplished, in our opinion, with such success that we now find ourselves in a collegial position with the school and with the Research Division of the Toronto Board. We make joint professional development presentations, share the concerns of the school, and jointly plan the conduct of the research both informally and through our formal advisory committee structure.

3.3.2. Participants as Co-researchers.

In order to construct a view of practical knowledge from the personal perspective of the user, we needed the participating teachers and others in the school system to function as co-researchers (Keen, 1975). The roles of the teachers and researchers were not exchanged, but both were deeply concerned about solving the same problems. As researchers, we worked with the teachers to help them improve their teaching and other work in the policy areas. Likewise, the teachers appreciated our need to understand and conceptualize their personal practical knowledge and its relationship to the policy environment in which they worked.

3.3.3. Openness of Purposes.

The purposes of the research were fully disclosed from the beginning; no attempts were made to mask intentions or hide interpretations. One of the first consequences of this criterion was that preliminary discussions with participants centered on our purposes as much as theirs. This interest continued throughout the course of the study. This "discovering" of the researchers' purposes ultimately shifted toward sharing, and indeed modifying the research purposes. (Chapter 4 provides further discussion of this point.)

3.3.4. Discussion of Interpretations with Participants.

As researchers we have not been dispassionate, objective observers of the situation; rather, as a consequence of our participation we have come to care about it. Values came into play, and more desirable courses of action were suggested and discussed with participants. This "caring" criterion implies that any work published as a result of this study has been discussed with teachers and other participants. Our intent has not been to condemn or blame practitioners. Frequently, in educational research, judgements are made without the participants' knowledge, and with little indication of sympathy for the practical context.

3.3.5. Validity.

The interpretations and conceptualizations in this study were offered from the perspective of users. The four criteria already noted contribute to their validity. All interpretations and generalizations were treated as tentative, to be tested again and again in further encounters and discussion with participants. A second, major claim for validity is based on demonstrating that the concepts of personal practical knowledge were of value in rethinking our notions of school improvement. To put it another way, validity rests on our ability to demonstrate that the conceptions offered were meaningful from the point of view of school improvement. All our progress reports, papers, presentations and student theses have been discussed with school personnel in order to help them understand our ideas and their application to day-to-day work in the school.

3.3.6. Research Stance.

One of the guiding principles of qualitative research is the simple notion that the research subject is a person. Recent work in psychology has directed increasing attention to the need to operate in terms of "a more adequate and realistic image of the human subject", (Combs et al. 1974; Giorgi 1970; Maslow 1969; May 1969), and this influence is also being felt in the educational context (Hunt 1976; Hunt and de Charms 1976; Sarason 1972). Work in the social sciences (e.g., Schutz and Luckman 1973; Schutz 1966; Garfinkel 1967; Cicourel 1964) has focussed directly on the interaction of researcher and subject in a shared process of practical reasoning. This perspective emphasizes that the person being studied has feelings, values, needs and purposes. These condition his participation in a research study, and can enrich and validate a study which considers them as much as it can sabotage one which ignores or suppresses them. Sarason (1972), for example, speaks of the need to understand the persons being studied from the perspective of their own situation rather than judgmentally, from afar. In his own work, this led to "choosing to experience the school culture via the helping relationship". Sarason thus reminds us that every research stance constitutes the adoption of a particular perspective, from which some things, but not others, can be seen. The concern for "bias" and "objectivity" in studies which involve a high degree of personal involvement (e.g., participant observation, the helping relationship described by Sarason, the unstructured interview of this study) is therefore misplaced. Because such studies make available a different range of data than do other procedures, they call for types of controls and styles of interpretation which take into account the context in which the data were collected.

3.3.7. Multiple Interpretations of Text.

As discussed above, transcripts, field notes, and specific events can be interpreted in different ways, depending on the perspectives, intentions and preliminary conceptions of the interpreters. In any interpretive process, it is necessary to demonstrate, through presenting the appropriate assumptions and logic, the particular course of the interpretations made. Demonstrating the link between the interpretations and the phenomena is essential. Otherwise work of this kind may degenerate into mere relativism, in which "anyone's interpretation is as good as anyone else's".

3.3.8. Ethical Criteria.

Because the qualitative methodology used in this study requires intensive working relations with practitioners, fundamental ethical issues arise as the researcher withdraws into his theoretical world to consider and report his results. In anthropology, researchers began to address these issues some years ago. Barnes (1963) raised ethical issues surrounding negotiation of entry and publication of results that are highly relevant to researchers working in education, particularly researchers whose aim is to promote individual growth and development.

When teachers and educators participate in studies using qualitative research methodologies, publication of the findings must respect teachers as professionals. Although legitimate criticisms of teaching can still be made, the researcher needs to ensure that participating teachers have an opportunity to respond to research claims. Criticisms and interpretation of research findings need to be offered from the perspective of the practitioners.

Ethical matters are more than mere procedures of benefit to the researchers; they represent what we consider to be proper working relationships in a research study such as ours.

3.4. THE RESEARCH SITE: BAY STREET SCHOOL

Bay Street School is a Junior Kindergarten to Grade 8 core inner city school in the city of Toronto. The school has 47 staff members and 750 students of ethnically diverse backgrounds. Approximately one-third of the students are Oriental, one-third Portuguese, one-fifth Black, and the remaining students of other various other ethnic origins. The school receives special inner city funding and is one of five schools designated by the Toronto Board as a Language Project School. Among the many Board policies that affect the school is its most high profile policy, the Race Relations Policy. Bay Street School is an experimental school under this policy as defined by the Human Rights Leadership Project.

The school is developmentally alive in many ways. Its principal is relatively new to the school, and 20 teachers joined the staff in September, 1981, replacing those who had asked to leave rather than become part of the three-year Language Project. As part of the Project mandate, the school is engaged in establishing shared decision-making mechanisms. It is trying to realize a working philosophy consistent both with the principal's child-centered and community oriented views and with the language orientation of the Project.

Teachers are expected to participate in the committee structure of the school, to justify a detailed curriculum plan for purposes of an observation-based evaluation, to become involved in the community through home visits and participation in community events, and always to be on the alert for racial incidents and racial bias in print. On top of these expectations, there is an almost constant demand for teachers to be involved with in-school professional development.

3.5. INTERACTIVE INTERPRETIVE INQUIRY: OUR METHOD OF WORK IN BAY STREET SCHOOL

3.5.1. General Features of the Methodology

This study has a general methodological intention. It is to engage in inquiry in an aesthetic sense by bringing both our interests and those of our participants into play. We strive to present our work in the same spirit. In this we are guided by Eisner (1979), who wrote that "the critical disclosure of classroom life should create a living image of that life so that the reader will have a kind of visceral understanding of what the place or material described is like" (p. xiii). Criticism, he said, is an art form. We have tried to combine this approach to research with that exemplified by our computer encoded records.

Our work is also cast in terms of a particular notion of the relationship between theory and practice, a notion outlined in Connelly (1980) and fully developed and conceptualized in Clandinin (1983). In brief, we adopt what the philosopher McKeon (1952) refers to as a "dialectical" relationship between theory and practice and between researcher and practitioner. Indeed, this is how Dewey (1934) described the production of a work of art. This notion commits us to a methodology of negotiation. We negotiate (a) entry, (b) methods of research work within the school, and (c) our interpretations of practice and practitioners. These three topics are briefly described below.

3.5.2. Entry to the School

We began negotiation of entry with the Toronto Board of Education in October, 1980 when we discussed the study with central office personnel. (A more detailed account of this aspect of negotiation is presented in section 6 below.) Our work was approved at the board level in November by the Research Review Committee, and negotiation with Bay Street School began in January, 1981. We had our first meeting with interested staff in March, 1981; we met the school cabinet (the school's decision-making body) in April, 1981, and two weeks later gained school approval to participate. Participant observation began in April, 1981 and continued on an intensive basis through June, 1982. We continued to be involved in the school until the time of writing in April, 1984 and we plan to maintain this involvement in the coming years. During 1982/1983 emphasis shifted from classroom participant observation to the discussion of ideas, concepts and working papers described in section 5.4 below.

3.5.3. Methods of Research in the School

The negotiation of research methods within the school began with the principal and school cabinet. It resulted in an agreement that we would pursue our research interests provided we were seen to be of some use to the school. Both parties were to benefit. The principal invited teachers to volunteer to work with us; Clandinin was invited to work in a Grade 1 classroom and Connelly to work in the library. It was understood that Clandinin would work three days per week and Connelly on a less frequent but weekly basis. In addition, we were invited to participate in a full range of school activities and to become involved in the major school committees and their main decision-making body, the cabinet.

Because of the dialectical relationship between researcher and practitioner, our negotiation of research methods within the school includes a process which we call "the negotiation of minded practices". For instance, Clandinin's negotiations with the Grade 1 teacher, Stephanie Winters, developed in such a way that Clandinin became, variously, a teacher aide and co-teacher of the class. She not only worked with individual students but also discussed programs for individuals and for the class as a whole. Both researcher and teacher had their own ways of doing things. Their practices would differ on, for example, the teaching of reading. Behind the differences, of course, were two minds at work. To use our term, the researcher and teacher employed different "minded practices"; their classroom practices differed because these were determined by their own thoughts and ideas. These practices were therefore "minded" rather than random or "mind-less". Negotiation of these practices was inevitable, and occupied both planning and reflective sessions when researcher and teacher evaluated completed lessons and planned new ones.

Our involvement in school activities precluded, for the most part, note-taking during our school visits. Short notes were kept during our meetings. After leaving the school, usually the same day, we reconstructed the events of the day using the dictaphone. The dictated notes were then entered into a DEC-10 computer through either a word processor or a computer text-editing system.

Unstructured, open-ended interviews were held with the school principal and other school staff. While some interviews were tape-recorded, most were recorded in field notes. Interpretive accounts of the data from one classroom were prepared on two occasions and presented to the teacher in the form of lengthy letters. All this material was entered into the computer.

3.5.4. Interpretations of Practice

The third feature of negotiation consists of sharing with school staff all of our written material on our interpretive constructs. The staff view this process as professional development. We have been invited to discuss papers privately with teachers and to lead noon-hour colloquia on our interpretations. From our point of view, these sessions enable us to obtain a "reality check" on our observations and to reflect on the constructs developed by way of interpretation of minded practice.

3.6. NEGOTIATION OF ENTRY

The project investigators became aware of the Toronto Board of Education policy on race relations at an OISE Department of Curriculum advisory meeting in November of 1979, when one of the Board's trustees spoke on the policy. No discussion of the proposed research was held with the Board at that time. In August 1980, after the proposal had been submitted for funding, a copy of the proposal was given to Dr. Ouida Wright, Assistant

Superintendent for the Toronto Board. Discussion of the proposal was postponed until the new term began in September.

3.6.1. Negotiation of Entry into the Toronto Board

Before unofficial notification of the NIE funding for the project had been received, a meeting was scheduled with Dr. Ouida Wright for October, 1980. Dr. Ed Wright, the Director of Research for the Toronto Board of Education, was also invited to the meeting. At that meeting, preliminary discussions of the research took place. Procedures for gaining access to the school board were explained and plans for submitting a proposal to the Board's Research Review Committee were made. Tentative recommendations for appropriate schools for use as research sites were made. There were preliminary discussions about the board's implementation plans for the Race Relations Policy. Dr. Ouida Wright was asked to be the liaison person between the research team and the Toronto Board. Preliminary discussions on completing the Toronto Board's research proposal form were held between the research assistant and Dr. Ed Wright. On October 29, 1980, in a telephone conversation between Dr. Connelly and Dr. Ouida Wright, Dr. Wright indicated that she "saw no problem internally in getting the project through."

Between November 2 and November 15, 1980, the Toronto Board's research proposal form was completed following the preparation of several drafts and several conversations among Drs. Ouida Wright, Ed Wright and M. Connelly. The Board's initial reaction to our proposal when it was submitted on their form was that the following problems would be evident: "the schools would not want interns," "an extended period of time in classrooms would not be approved" and "invasion of classrooms should be limited." Further discussions of research purposes and terminology were held and a final proposal was submitted to the Research Review Committee in mid-November, 1980.

3.6.2. Negotiation of Entry into the Schools

3.6.2.1 Facilitation of Negotiation of Entry by System Staff. On November 26th, 1980, Dr. Ed Wright reported that the proposal had been approved by the Research Review Committee. His next step was to contact the Area Superintendent. On December 15th and December 17th, further discussions with Dr. Ouida Wright were held. She was interested in finding out when we would be ready to commence work in the schools. We indicated that we had not been contacted by a school, and so the next step was to arrange school contact. On December 18th, 1980, Dr. Ed Wright said he had sent a memo to the Area Superintendent but the Superintendent has not yet responded. On December 22, 1980, Dr. Ed Wright reported that the Superintendent had suggested that we work in Circle School. Dr. Ed Wright agreed to contact the school on our behalf early in 1981.

3.6.2.2 Negotiation of Entry with School Number 1. On January 6th, 1981, Dr. Ed Wright informed us that he had been in touch with the principal of Circle School about its possible use as a research site. The same day, we called the principal of Circle School. We called again on January 8th, 1981, and a meeting with the principal, the vice-principal, Dr. Connelly and the research assistant was planned for January 9th, 1981.

During the January 9th meeting, the research purposes were explained to the administrative staff of Circle School. They had received a copy of the Board's research proposal form and raised a number of questions. Our purpose at the meeting was to explain our research purposes, to inform the staff of what we would do for the school, and to let them know what we would expect of the school. Our intent was to get permission from the school to speak to the teachers. The principal agreed to present the proposal to the teachers in order to see if there was any interest in having them meet with us. After the presentation we would be advised if there would be a further meeting.

On January 12th, 1981, we contacted Dr. Ed Wright at the Board's Central Office to inform him of the progress. On January 13th, 1981, we received a phone call from the principal of Circle School. The proposal had been taken to the staff and they had indicated they would like a meeting with us on January 20th, 1981. We relayed the information to Dr. Ed Wright.

The meeting with the Circle School staff was held on January 20th, 1981. The majority of the staff attended. We presented the research proposal and answered questions. The principal said the staff would have until the next day to indicate whether they were interested in having us work in any classroom. On January 21st, 1981, the principal informed us that no teacher had indicated an interest.

3.6.2.3 Negotiation of Entry with School Number 2. On January 22nd, 1981, we relayed that information to Dr. Ed Wright. He suggested Bay Street School, and said he would be in touch with the principal. Once he had spoken with the principal, we could give the principal a call. On January 27th, 1981, we phoned the principal of Bay Street School. Since he had not yet seen a copy of the proposal, we delivered several copies to his school. On January 30th, 1981, we called him again. He said he would have a group of his teachers look at the proposal and they would get back to us.

On February 5th, 1981, we contacted the principal of Bay Street School but he said he had not yet found time to have his teachers look at the proposal. On February 11th, 1981, we again talked with the principal, who indicated he would have feedback on our proposal after February 20th, 1981.

We did not hear from the principal at that time. On March 3rd and March 4th, 1981, we spoke with both Dr. Ed Wright and Dr. Ouida Wright about the lack of response from the school. On March 10th, 1981, when we called the principal, he said he still had not found time to discuss the proposal with his teachers. Later that day, we again discussed our concern about the school's lack of response with Dr. Ouida Wright and Dr. Ed Wright. Dr. Ed Wright suggested we should approach another school if we did not get a response from Bay Street School by the end of the week.

On March 11th, 1981, we received a call from Bay Street School's Race Relations representative, who said that the school staff would meet with us on March 19th, 1981. On March 18th, 1981, we relayed this information to Dr. Ouida Wright.

On March 18th, 1981, a lunch-hour meeting of the project staff and interested Bay Street School teachers was held in the school staff room.

Preliminary discussions about the research purposes and the possibility of the school's involvement were held. The project team was invited to attend the April 6th, 1981, cabinet meeting of Bay Street School. The cabinet is the school's formal decision-making body, composed of the administrative staff and chairpersons of school committees. On April 6th, 1981, we attended the cabinet meeting and received tentative approval for Bay Street School as a research site. On April 13th, 1981, project staff were informed that the school was willing to participate in the study.

3.6.2.4 Negotiation of Entry within the School. On April 15th, 1981, the principal investigator and research assistant met with the school principal and the school's Race Relations representative to discuss further our work in the school. It was agreed that initially one classroom teacher would be involved and that the teacher-librarian would arrange any contact with the rest of the school staff.

3.6.2.5 Negotiation of Entry into Classroom. The principal investigator and the research assistant were taken, respectively, to the teacher-librarian and the participating teacher by the school principal. He had previously obtained their consent as participants in the study.

The teacher-librarian had discussed the research purposes with the project team on March 19th, 1981. Her participation in the project as the principal investigator's contact in the school was discussed on April 15th, 1981. The grade 1-2 teacher who agreed to participate in the study met the project staff briefly on April 15, 1981. We discussed her role as a participant in the research project on April 21st, 1981.

3.6.2.6 Negotiation of Entry into Policy Implementation at the System Level. On March 13, 1981 we met with Mr. Alix Kline, the Toronto Board of Education Race Relations Advisor. We discussed our research with him and asked his assistance in coming to understand the policy at the system level.

3.7. CONSTRUCTING FIELD NOTES

During the first interview with central office staff, on October 23, 1980, both Michael Connelly and Jean Clandinin made brief notes. After the interview, a period of time was spent discussing it, making more complete field notes, and trying to draw out what can be seen, in retrospect, as themes of importance.

Brief notes on all telephone calls were kept. These conversations were later reviewed and expanded versions of the notes were made. After the two meetings with the Circle School staff, M. Connelly and J. Clandinin discussed them and jointly made a set of field notes, using the dictaphone. These notes were later transcribed and typed into the DEC 10 computer.

Brief field notes were kept by M. Connelly and J. Clandinin on all meetings and interviews with the Bay Street School staff. Expanded versions of the notes were made later, usually the same day, using the dictaphone. These notes were later transcribed and typed for eventual storage in the DEC-10 computer.

3.8. COMPUTERIZED ANALYSIS OF QUALITATIVE DATA

During the course of the research project, huge volumes of textual data were collected. These included interview transcripts, field note material, reports, minutes of meetings, notes and observations, and interpretive accounts. The problem of the handling of the large quantities of material has posed a continuing research problem. We have dealt with it by developing a computerized program for working with the data.

Our first step toward a solution was the acquisition of two word processing systems - a WPS 78 and the DECmate, both from Digital Equipment Corporation. The systems came with a number of important features, including the ability to review, edit, and print updated copies efficiently. Further, our information is now stored on computer diskettes, which provide a far more compact and accessible medium than paper.

In addition, we established a communications package which enables us to transfer documents to and from the DEC 10 computer, the mainframe computer in our building. From our point of view, the DEC 10's most attractive features are its mass storage on hard disks, which enable all of our disks to be accessed at one time, and its capabilities for developing and supporting specialized software packages with which to process our data.

Thus, we have been successful in creating a system in which the storage and access of information is fairly efficient. However, as our files began to number in the hundreds, we encountered a second problem, where to access information. We had to search through the documents in order to retrieve specific items of interest. In most cases, we were unable to use our word processors, because only one diskette may be used at a time, and its storage capacity is relatively limited. It thus became necessary to develop our own computer program for dealing with the textual data. An account of the development of this program, called SCAN, is provided in an appendix to this chapter.

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APPENDIX TO CHAPTER 3
REPORT ON A COMPUTERISED DATA SYSTEM FOR ANALYSIS OF TEXTUAL DATA

This report describes a newly-developed software package called SCAN. Its purpose is to provide an efficient means for searching a large number of files in order to locate certain pieces of information.

Section 1 recounts the events which led to the creation of SCAN, highlighting the problems we encountered when working with large amounts of text information.

Section 2 discusses the capabilities of SCAN, reviewing, in order, the special search, file, user, output, and software features that have been built in.

Section 3 describes the functionality of the package, focussing on how the program is actually run.

1. PROBLEMS WITH TEXT DATA

During the course of a long research project, huge volumes of data are collected. In our case, this data most often took the form of text information, including reports, surveys, interviews, and other notes and observations. As the amount of data grew, organizing it in such a manner that useful information could be located efficiently became a serious problem.

Our first step in approaching a solution was the acquisition of two word processing systems - a WPS 78 and a DECmate, both from Digital Equipment Corporation. These systems came with a number of important features, including the ability to review, edit, and print updated copies very efficiently. Further, our information is now stored on computer diskettes, which provide a far more compact and accessible medium than paper.

In addition, we also requested a communications package which enables us to transfer documents to and from the DEC10 computer in our building. From our point of view, the DEC10's most attractive features are its mass storage on hard disks, which enable all of our files to be accessed at one time, and its capability for developing and supporting specialized software packages with which to process our data.

Thus, we have been successful in creating a system in which the storage and access of information is fairly efficient. However, as our files began to number in the hundreds, we ran into another, more subtle problem -- *where* to access information.

Of course, if one can remember the name of the document he is interested in, it is a simple procedure to look through an index for the diskette it is stored on. However, during the process of analysing information, one is often struck with an idea that pertains to a name, or place, or phrase that he has seen in one of the files, but isn't sure which.

Therefore, it becomes necessary to search through the documents in order to retrieve specific items of interest. This rules out the use of our word processors in most cases, because only one data diskette may be used at a time, and its storage is relatively limited.

Further, although the DEC10 is capable of accessing all of our files at once, it poses a number of other problems. First, the standard method of searching is via the text editors, but they only handle one file at a time, and this process would take too long if one was not relatively sure of which file held the desired information.

More importantly, perhaps, is that text editors are generally poorly equipped to search files for text information. For example, they will not recognize words that have been hyphenated. Further, if one is looking for a phrase made up of a number of words, the editors will not find it if it happens to be written on more than one line.

There are further problems associated with pattern-matching. A major one concerns the use of spaces and tabs in text. The computer sees a tab as a special character, *not* a collection of spaces, as one might think. Therefore, the phrase

"Subject: Locating tapes."

may have been documented as:

"Subject:ssssssLocating tapes."
or

"Subject:tLocating tapes."

where s and t stand for spaces and tabs, respectively. The representations would look no different to you if you saw them displayed on the screen, but to a computer trying to match the phrase in a document, the two examples above are *not* the same. The situation gets slightly trickier when one realizes that the computer allots different amounts of space to tabs, depending on where on a line it finds them. If this seems strange, think carefully of how a tab works on a typewriter.

Even more subtle problems exist. For example, when documents are typed into a file, it may very often happen that more than one space is left between words, or more than two are left between sentences. When reading the document, the effect of these mistakes is so small as to be unrecognizable, especially if it has been printed with its text right-justified, so that all the spaces have been adjusted anyhow. Once again, however, we must live with the fact that to the computer, there will be a definite difference.

Thus, recognizing words and phrases in text is not a straightforward problem which may be handled by regular text editors. Even if they could, there is the difficulty of having them process a (possibly large) number of files at one time.

Finally, we are left with the question of how to display the results. Certainly, we may wish only to see the areas of text that matched the information we were looking for. Further, if we are scanning many documents at once, we may prefer not to try and catch these results on the terminal screen, but to have them dumped into a file, or printed out onto paper, which we may review later at our convenience.

For these reasons, among others, we initiated the development of the program SCAN. The next section discusses the various features built into SCAN, highlighting how they pertain to the problems described above.

2. PROGRAM SCAN

This section looks at the capabilities built into program SCAN in order to provide solutions to these difficulties of finding text-related information in computer files. Before proceeding, however, it would be useful to define a few terms which will be in common use throughout the section. These are:

"Whitespace": any number of successive blanks and/or tabs in the text.

"Word": any collection of successive characters which do not contain any whitespace.

"Pattern": any word, or group of words, separated by white space.

"Wildcard Characters": specially selected characters that, during a pattern match, may be taken to represent *any* character, or, in some cases, *any* word.

2.1 Search Features

A great deal of effort has been put into ensuring that SCAN's search capabilities are as flexible as possible. If one is going to follow the expensive pursuit of scanning many files, the scanning program *must* find all reasonable matches the first time through.

Patterns. In order to save the user from setting up a search sequence for each pattern he wishes to retrieve, SCAN will allow him to specify up to *ten* patterns at any one time.

Hyphens. One of the most obvious features to build in was the ability to interpret hyphens correctly. Basically, when SCAN encounters a valid hyphen at the end of a line, it simply considers the following line as a direct continuation of the present one. In this way, a "seamless join" is made, and any word broken by hyphenation at the end of a line will be automatically reconnected to the remaining syllable(s) on the next line.

Flexible White Spacing. This feature reflects the comments made in Section 1 about tabs and spaces. When a search pattern is specified, SCAN has been designed so that it does not care how much whitespace lies between each of the words. For example, if we asked SCAN to look for the following pattern:

"This is a pattern"

it would successfully match any of the patterns below, where s and t once again refer to spaces and tabs, respectively.

"Thississaspattern"

"Thisssissssssasssssssspattern"

"Thistsstsistttassspattern"

Thus, the amount of whitespace found between words in the text is unimportant to SCAN, which will match all patterns so long as the characters in the words line up correctly. Furthermore, SCAN has been designed so that the end of lines are considered to be whitespace as well. There is thus no difficulty in matching patterns which cross from one line to another.

Wildcard Characters. The number of patterns that may be specified in any one run is limited to ten, so SCAN provides the user with a bit more flexibility by using wildcard characters. Two kinds of wildcard characters may be selected. The first is called a "one-character-match" wildcard. When used in a pattern, it will match any character that it sees in the input text. For example, if we denote "?" as our one-character-match wildcard, and use the pattern

L?ST

it will match any of the following patterns:

LAST
LEST
LIST
LOST
LUST

SCAN also offers a more powerful wildcard - the "multi-character-match" wildcard. This may be used whenever one wishes to match anywhere from 0 to 80 characters, which may or may not contain whitespace. For example, if we denote "*" as our multi-character-match wildcard, and use the pattern

P*Mitchell

it will match any of the patterns

P. Mitchell
Patty Mitchell

Patricia A. Mitchell
Patricia Anne Mitchell

and so on.

2.2 File Features: Directories

SCAN is capable of searching through many files at one time for a given set of patterns. Often, though, there will be a certain grouping of files which are processed for one particular set of patterns or another. It would be tiresome to have to keep entering all of the file names each time a search is executed. These considerations have led to the use of *directories*. A directory is a group of files. The user may create up to twenty directories, and each may be configured to hold as many as two hundred files, on the condition that the total number of files assigned to all directories does not itself exceed two hundred. Directories enable users to refer to groups of files quickly and efficiently.

2.3 Output Features

The user may wish to see the results of his searches on the screen right away, have them placed into a file for later review, or receive a printout to keep as a permanent record. The following output features provide for these options.

Screen Display. The normal screen display will tell the user what file is being scanned, and show the patterns being searched, along with a count of how many times they have matched successfully. Underneath this information, if desired, the user may watch the text as it is being processed. Boldfacing is used to signal any areas that have been matched by one of the patterns. Occasionally, the user may simply wish to find the first occurrence of a pattern. Therefore, he is given the option of having the program wait each time a pattern match is found. The user may then tell SCAN to stop processing, or continue on with the rest of the file(s). If the user does not wish to watch the screen for pattern matches, SCAN will alert him by beeping the terminal when patterns are found, or when all the files have been completely searched.

File Storage. If a search is to be very long, or if the user would like the results to be held on the system, it is possible for them to be dumped into a file for later viewing. This file may be new, or one which already exists, in which case SCAN offers the option of overwriting the old contents, or appending the new information at the end of the old file. Since these files will be of standard format, it is possible to have them transferred from the DEC10 to the word processors for further viewing, processing, or printout.

Printer Output. It is also possible to have the results of a scan printed on one of the main printers. This may be especially handy if hard copies are desired for quick reference, and the output is not too large. The user has the option of highlighting matched areas of text in the printout by boldfacing, underlining, or both.

The following output features may be applied to any combination of screen, output file, or printer, as desired.

Line Indicators. When viewing the search results, it may be desirable to know exactly where in the text pattern matches occur. Therefore, the user is given the option of including line numbers in the output. If line numbers would clutter up the output, he may request that they be printed every so often (every five lines, or every ten lines, and so on).

Windowing the Pattern Matches. One may not wish to look at all the text in the files he is searching, but only the text around the area where a pattern match occurs. The user may therefore specify a "window" around the pattern matches, of up to twenty lines. If, for example, he chooses twelve, the only text that will be printed are the twelve lines occurring before pattern matches, and the twelve lines which follow them. This technique permits restricting display to the text relevant to the information being searched. By combining this option with line numbers, the user can quickly locate the pattern match in the original document.

Summary Statistics. One may not be interested in where the pattern matches occur, but only in whether or not they do, and how many times. For this reason, summary statistics may be requested. These statistics will describe how many times each pattern was matched in each file, as well as the total number of times each pattern matched, and the total number of patterns that were matched in each file.

2.4 User Features

In order for SCAN's features to be properly utilized, much of the program's design has gone into providing an effective dialogue with the user.

Flexibility. Most of the features offered may be set or adjusted by the user in order to suit the needs of a particular run. These options include the choice of which characters will represent wildcard characters, whether or not statistics will be displayed, how many lines will surround a pattern match, and so on.

Error-Protection. The program was designed so that any user input which is obviously incorrect will be caught before damage may be done. Further, when such a case occurs, the user will be shown a suitable error message, describing what was wrong, and given the opportunity of entering a more suitable response. Building a program which is very forgiving is expensive, in terms of the amount of code required to handle all possible erroneous inputs. However, if such steps are not taken, one would never feel comfortable enough to experiment with the program, and explore it to its fullest potential.

Menus. SCAN interacts with the user by presenting menus which outline his choices and instruct him how to enter information. The menus have been designed to be fast and easy to use; they highlight important message areas and show the user the results of all his requests. For example, if he wishes to enter new search patterns, he begins by calling up the appropriate menu. It will present him with a list of all his old patterns, and a summary of the commands which may be used (to add or delete newpatterns,etc.). If the user adds a new pattern, it will be displayed to him as part of the list on the screen, for verification. Similarly, if he wishes to delete a pattern, it will be erased from the screen, so he may check that he did, in fact, specify the correct pattern. Menus thus serve both to remind the user of his options, and to provide him with positive feedback to verify the commands he enters.

2.5 Software Features

Program SCAN was developed to run on the DEC10, and display information on a VT100 terminal. However, since equipment is constantly being updated, we "soft-coded" SCAN and made it as general as possible. In this way, it should prove relatively easy to adjust to new hardware, operating systems, or other future refinements.

Compatibility. In order to provide the most compatible code possible, Fortran was used to code the program. Although many special features of the language have been designed to run on the DEC10, only those commonly found elsewhere were included in SCAN. Further, all input and output is done through versatile routines designed to interface with the VT100. SCAN may be configured to run with any similar terminal simply by adjusting these routines, without changing any of the main program code at all. Finally, the memory requirements for SCAN were largely soft-coded. This means that parameters like the number of directories or files may be set in one statement to whatever is desired, and this choice will be reflected automatically throughout the rest of the program. In this way, maximum use of memory space may be made, regardless of the capabilities of the system on which SCAN is running.

Another set of useful routines developed are concerned with handling input from the user, and error-checking. The routines were designed to automatically left- or right-justify input text, or return numeric equivalents to alphanumeric responses, or blank-fill tabs, and so on. They may find general applicability no matter to what system they are applied.

Robustness. One of the most critical aspects of Fortran is that it does almost no error-checking on its own. Programs written with Fortran will be only too happy to try executing any manner of input, and obliterate themselves in the process. Therefore, SCAN has been well-stocked with error-checking routines that verify both that the type of data entered is valid, and that (for numerical input) it falls into a suitable range. This kind of checking would be considered *critical* to the welfare of the program. SCAN is also designed, however, to look at the user response to see whether or not it is *reasonable.* For example, when prompted for a name, the user may respond with too many characters. Not only will SCAN accept the valid number of characters, but it will also warn the user that not all of them were read in. This latter form of checking is not necessary for the program's well-being, but helps to build the user's confidence in knowing what the program is doing, and why.

3. FUNCTIONALITY OF SCAN

The purpose of this section is to outline the functionality of SCAN, focussing on how the program is actually run. An early design goal was to offer a package that could be quickly mastered and used effectively. For this reason, SCAN interacts with the user by presenting menus, which outline his choices and instruct on how to enter information. This report discusses each of these menus in detail.

3.1 Main Menu

The first menu to be presented after the program has been started is the following:

```
          Main Menu


     1. Begin a scan run
     2. Choose patterns
     3. Choose files & directories
     4. Edit directories
     5. Set options
     6. End the program


     Enter (1-6) = >
```

We will skip Option 1 for the moment. Option 2 is used to call up the menu for describing the patterns one wishes to search for (see Section 3.2).

Option 3 will present a menu for defining the scope of the search. This will include a complete list of all the files and directories that the computer will open and scan for the patterns specified by Option 2 (see Section 3.3).

Any given directory may hold an arbitrarily long list of file names (so long as the total in all the directories does not exceed 200, at present). In order to set up and edit these directories, Option 4 is used (see Section 3.4).

There are a number of user-definable options which help to tailor the actions taken by the computer during a scan. These include a variety of matching options, such as whether or not to distinguish between upper and lowercase characters, or to concatenate lines ending with hyphens, and also a number of display features, such as whether or not to generate file or printer outputs, and how the text which matches patterns should be highlighed. Option 5 is used to set these features (see Section 3.5).

Option 6 is straightforward; it simply exits the SCAN program. Note that upon leaving SCAN, all of the directory, file, pattern and option settings are saved on disk to be restored the next time the program is run.

Option 1 is invoked after the user has set up the scan run as desired. When chosen, the computer will open the files specified, and attempt to match the indicated patterns and display the results of the search according to the options in effect.

3.2. Pattern Specification Menu

If Option 2 from the Main Menu is chosen, the following menu will be presented:

```
                Pattern Specification Menu


Current Patterns are:

        1.
        2.
        3.
        4.
        5.
        6.
        7.
        8.
        9.
        10.


Enter (A,D,I,E) = >

                      Command Options

Wildcard Characters              A:  Add new pattern
                             D:  Delete old pattern
?:  for one-to-one match         I:  Initialize pattern set
*:  for multi-character match     E:  Exit
```

Recall from the last report that wildcard characters are used when we wish to match "any" character. The "one-to-one" match uses the question mark as a default symbol, and if included in a pattern specification will match any single nonblank character. The "multi-character match" uses an asterisk for its default symbol, and if included in a pattern specification will match any arbitrary group of characters. It is possible to change the default symbols for the wildcard characters using the Option Menu (if, for instance, one wished to match a real question mark or asterisk in the text being scanned). Note that the multi-character wildcard is a very powerful feature, but should only used where necessary as it greatly increases the computational load when scanning for patterns.

Up to ten patterns may be specified for a given scan run. If any had been previously entered, they would be shown next to the numbers above.

In order to add patterns to the search, the user selects command A, which will then present a prompt for the new patterns. As each pattern is entered, any multiple blanks or tabs will be compressed to single blanks, and the resulting pattern will be displayed beside its appropriate number. The reason extra tabs and blanks are removed is that the scan process uses the concept of "flexible whitespace", (as described in Section 2) which, briefly, means that while examining the text the program will not distinguish between blanks, tabs, or end of lines, but treat them all simply as "word separators".

Patterns may be deleted using command d, which will prompt for the number of the pattern to be removed, and then erase it from the display.

If an entirely new pattern set is to be entered for the next run, the old ones need not be eliminated one by one. the entire set may be initialized at once using the i option. as this command could have an annoying effect if invoked accidentally, the program will prompt to verify the choice before erasing the old pattern set.

The exit command, e, is used to leave the pattern specification menu and return to the main menu.

3.3 File Specification Menu

If Option 3 is chosen from the Main Menu, the following menu will be presented:

```
                 File Specification Menu

Current Files and Directories are:

             1.
             2.
             3.
             4.
             5.
             6.
             7.
             8.
             9.
            10.

Enter (A,D,I,E) = >

                         Command Options

Directories specified by:          A:  Add new file or directory
                               D:  Delete old file or directory
D [directory number or name]       I:  Initialize all specifications
                               E:  Exit
```

This menu is used to state which files the computer should open to look for pattern matches. Either files or directories may be added to or deleted from the search list here. In order to help the program distinguish one from the other, references to directories are always preceded by typing a "D" and then a space.

New files and directories may be included in the scan run by selecting the A option, which will cause the program to present a prompt for the new entries. File names may be specified directly, and directories may be given by entering a "D", a space, and then the unique directory name or number identifier. Any one scan run is capable of processing up to ten file or directory entries (recall that a directory may contain up to two hundred file names, so this should not prove to be a serious restriction).

Files and directories may be removed from the search list by selecting the D option, which will prompt for the number of the file or directory to be dropped, and then erase it from the display. This action will not destroy a given directory, but only take it out of the current search list.

If an entirely new set of files and directories is to be entered for the next run, the old entries need not be eliminated one by one. The entire set may be initialized at once using the I option. In order to avoid accidental misuse of this command, the program will prompt to verify the choice before erasing the old set of files and directories.

When the specifications are complete, the user may leave the File Specification Menu and return to the Main Menu by choosing the exit command, E.

3.4 Directory Edit Menu

If Option 4 is chosen from the Main menu, the following menu will be presented:

```
                 Directory Edit Menu


Files For

              1.
              2.
              3.
              4.
              5.
              6.
              7.
              8.
              9.
             10.


Enter (A,C,D,E,F,L,N,R,S) = >


                 Command Options

C Create directory  A Add new file to directory   N Display next group of files
D Delete directory  R Remove file from directory  L Display last group of files
S Select directory  F Find file in directory      E Exit
```

Creating and deleting directories is done via the C and D commands. When a new directory is made, the user is prompted for a unique directory name. As this may be quite long, the program also prompts for a unique directory number, which may be used as a shorthand reference to the directory in the future. If the user wishes to delete a directory, by typing the D command, the program will prompt him to make sure before the directory contents are erased.

Normally, the menu would display the last directory edited ("Files For xxxxxxxx") and the first ten file names in it. If the user wishes to examine a different directory, he can enter the select command, S, whereupon the program will prompt for either the name or number of the desired directory.

Adding and removing files from the current directory may be done using the A and R commands. When A is entered, the program will check to ensure that there is room for another file (the combined total for all directories must not exceed two hundred, at present) and then prompt for the name of the file to be added. Files may be removed from the directory by entering R, followed either by the file name itself, or the number currently displayed beside it on the screen.

As it is possible to display all (possibly 200) files in a directory at once, the program will show a list of ten at a time. The N command may be selected to display the next group of ten, or the L command to display the last group. If the user wants to know if a file is presently in the directory, but does not want to "browse" through it ten at a time, then he may use the find command, F, to specify the file he wishes to locate, and the program will then update the display to present that file on the screen (if, in fact, it is contained in the current directory).

Once again, the exit command, E, is used to leave the Directory Edit Menu and return to the Main Menu.

3.5 Option Menu

If Option 5 from the Main Menu is chosen, the following menu will be presented:

```
                Option Menu

Enter option number (1-13) followed by option =>
(Enter E to exit)

     1. Distinguish between upper & lowercase (Y/N) N
     2. Concatenate lines ending with hyphens (Y/N) Y

     3. Wildcard characters: Single Match ?
     4.                      Multi Match  *

     5. Maximum number of lines to display      1000
     6. Print all text processed (Y/N)          Y
     7. Number of lines before & after each match  0

     8. Display scan results on terminal (Y/N) Y

     9. Print out scan results    (Y/N) N
    10. Highlight by boldfacing (Y/N) Y
    11.              underlining (Y/N) N

    12. Record scan results in print file (Y/N) N
    13. Highlight character            =
```

In order to select an option, the user first enters the number of the option, and then follows this by what he wishes to replace the option with. For example, to have the scan process distinguish between upper and lowercase characters the user would enter 1 followed by a blank and the letter Y (for "yes").

The second option has to do with whether or not a hyphenated word at the end of a line should be concatenated with its remaining part on the next line when the program is trying to match a pattern to it. Normally, this is the case, but the user may wish to turn the option off if one of the patterns contained the dash character ("-").

The third and fourth options allow the user to specify any character to be the symbol for single and multi match wildcards. This feature was reviewed in Section 2.

The fifth option, that of limiting the number of lines displayed, could be very important if a printout was to be produced and printer costs were high. If, for example, the wrong directory was included in the search, and it contained very many files, then hundreds of pages of output could be printed as a result of the scan. To safeguard against this possibility, a limit to the maximum number of lines displayed (and printed) could be set.

Sometimes, if the files involved are not too large, it is useful to have the entire amount of text displayed, with the areas that matched patterns highlighted. In this case, option 6 may be set to Y. However, if a great deal of text is to be scanned, and only a small part of it will match a pattern, then the option should be turned off.

However, even if the entire amount of text is not displayed, it is often useful to show a few lines before and after each occurrence of a pattern match. This may be accomplished by specifying how many lines before and after each occurrence are to be displayed, using option 7.

If a great deal of text is to be scanned, it is probably not worthwhile to watch it scroll by on the screen (and the computer will be finished long before the last line reaches the screen). In these cases, option 8 may be used to suppress displaying the scan results on the terminal.

If a printout is desired, option 9 may be turned on. Two methods of highlighting a pattern match are offered. First, the characters which matched could be reprinted as boldfaced. If, however, the print is too dark to distinguish boldfacing easily, or if it is a letter quality printer (with some areas already boldfaced), then the other option is to underline those characters which have matched. Note that it is also possible to combine these two options in order to make the matched characters really stand out.

Finally, the scan results may be recorded in a print file (named "SCAN.PRT"). This will often prove to be the cheapest and quickest approach when searching through a large list of files. In this case, highlighting the characters must be done in a special way (as lines may not be "reprinted", nor, generally speaking, can special word-processing codes for boldfacing or underlining be included). Following each line that has matched a pattern, an additional line will be added. This line will be blank except for a "highlight character" underneath each of the matched characters in the line above. The default highlight character, an equals sign " = ", has proven to indicate matches quite clearly in files, although it is possible to pick any desired character, via option 13.

Once again, the exit command, E, is used to leave the Option Menu and return to the Main Menu.

Chapter 4

IMAGES OF THE RELATIONSHIP OF THEORY AND PRACTICE

4.1. INTRODUCTION

Over the past twenty years, as Chapter 1 has pointed out, educational researchers have tended to view school change as a problem of translating knowledge into action, and have thus focussed on process rather than substance in their studies of school reform. In contrast, the project reported here views school change and improvement, not primarily as a problem of implementation, but rather one of the practical uses of knowledge. The present study has two principal tasks, (a) the development of an understanding of how policy interacts with practice from the perspective of school practitioners and, (b) the development of a conceptualization of the personal practical knowledge of practitioners as they function in schools amid a policy environment.

The study has now completed its third year in an inner-city school in a large metropolitan school board. The two board policies under study are the Race Relations Policy and the Inner-City Language Development Policy, both among the board's high profile policies. The study has developed a conceptualization of practitioner knowledge as it is expressed in school and classroom practices, and accounts of how these two policies are integrated into the practical lives of teachers. We have shown how implementation and other traditional ways of talking about policy and practice are limited, and in certain circumstances even wrong.

If we retain the view that school improvement is essentially a problem in the practical uses of knowledge rather than in the methods of implementing it, and if our current paradigm has failed, how shall we reconstruct our views of the relationship between knowledge and practice? This problem has attracted the attention of philosophers (Strike 1979; Gowin 1972; Dunckel 1972; and Thomas 1972), psychologists (Sullivan 1982; Hunt 1978, 1980), curriculum workers (Reid 1978; Connelly 1972; Schwab 1970, 1971, 1973, 1983) and others. Along with them, we believe fundamentally new concepts of the relationship between theory and practice are required to underpin our efforts at school improvement through the development and uses of policy.

4.2. THEORETICAL AND EMPIRICAL BACKGROUND

4.2.1. Underlying Themes in this Study

The literature on school improvement through curriculum innovation is extensive and has been comprehensively reviewed (Fullan & Pomfret, 1977; House, 1979; Fullan, 1982). Our purpose in this chapter is not to repeat or add to this review literature, but to expound the themes that underlie our work. There are three. First, we wish to draw attention to the concept of schooling as a practical venture and to underpin our notions of it with philosophical writings on the nature of the practical (e.g., Schwab, 1970-73, Gauthier, 1963, and Aristotle). Second, we wish to focus on the teacher as a central practical agent in schooling and, accordingly, to draw attention to the practical knowledge and practical reasoning of teachers. Third, we wish to put forward our belief that school reform must begin with conceptions grounded in practice and in particular, with notions of the teacher's practical knowledge, rather than with theoretical notions about the nature of knowledge or the nature of implementation and change.

4.2.2. Relationships Between Theory and Practice in School Improvement

A policy, from the point of view of schools and their practitioners, is a matter of theory. Both policy and theory are developed elsewhere and both are prescriptive of practitioner action (Connelly, 1982). In a paper well-known outside education, the philosopher McKeon (1952) characterizes four possible relationships that have, through history, characterized the ways theory and practice have been related both in philosophy and in the world of action. These relations typify the ways in which policy and practice are related in the field of education. McKeon puts the problem as follows: "In their practical aspects the relations of theory and practice present two problems--the problem of the influence of circumstances in the determination of thought, and the problem of the consequences of thought, doctrine, and philosophy in the alteration and control of circumstances." (p.79.)

With rare exceptions, such as Berman and McLaughlin's (1979) and Fullan's (1979) notion of "mutual adaptation", school reform has essentially been conceived according to McKeon's second problem, namely, how practice can be seen to be influenced by theory. The problem of the influence of practice on theory has, at best, been forced upon educators as their notions on the second problem have failed their practical tests.

Now, both of these problems, according to McKeon, may be viewed dialectically, logistically, problematically, and operationally. According to the *logistic* conception, the worlds of theory and practice are seen as distinct. Practice is treated as applied theory and it is assumed that the motives of action differ from the principles of knowledge. Action is seen as fundamentally irrational and, since there is no certainty in action, a science of action, which in education has become implementation and change theory, is needed to guide the uses of theory in practice. The research emphasis tends to be on the development of knowledge aimed at controlling the uses of policy in practice. This feature marks the attempts of educational reformers to build system analysis theories, implementation strategies, models of planned change, and the like to ensure policy implementation and, thereby, school improvement.

Closely related, in the field of education, is McKeon's *operational* view of the relationship of theory and practice. Here, practice is seen as determining the relevant theory through the actions taken. Again, practice is seen as essentially non-rational and as a result, truth is sought in opinion and criteria of usefulness. Knowledge is viewed as mere activity and process. Characteristically, ideas are converted to processes and one searches for operational procedures for persuading practitioners to operate in certain ways. Unlike the logistic, then, where research is aimed at the development of rational, logical methods for translating policy into practice, thereby ensuring that practitioners behave in certain ways, the operational tends to "fly by the seat of the pants". It puts its trust in such matters as needs assessment and user opinion to get a fix on the attitudes and predispositions of practitioners. These are then used to manipulate and persuade practitioners through the use of rewards in the intervention process. The education "change agent" modifying user attitudes, beliefs and values is a familiar figure in the operational literature.

The *problematic* conception of the relationship between theory and practice has a limited expression in the educational improvement literature. Here, according to McKeon, theory and practice are seen as closely related. The practical is essentially viewed as a form of inquiry, differing, however, from inquiry in the natural sciences. That is, the methods of knowledge production are viewed as different from the methods of practical problem-solving. Nevertheless, policy is viewed as entering practice through problem-solving methods. According to this conception, policy is modified, adjusted and used selectively according to the dictates of the particular problem confronted; problems are treated as they occur. There have been no full-blown problematic views in evidence in the past twenty years of school improvement, although tentative, more limited versions have occurred (Berman and McLaughlin, 1979; Parlett and Hamilton, 1977; Shipman, 1974). Notions such as action research (Little, 1983) and "mutual adaptation" (Fullan, 1982) acknowledge the problematic method. However, such conceptions are proposed in the context of particular policy structures and ideas required by the schools, for example, equality of opportunity. Hence, the educational versions of the problematic have not been genuinely conceived from the perspective of the practitioner. Rather, inquiry and problem-solving have been treated by educational reformers as a method more akin to the logistic than to a genuine notion of the problematic. In these educational views, the essential problem is presented by the world of theory and policy rather than by the practical world of users.

Finally, McKeon's *dialectical* conception views theory and practice as inseparable. Problems of theory are seen in practice and vice versa. Indeed, practice *is* theory in action; there is no essential dichotomy. According to this view, the practical constitutes a kind of theoretical proof such that if theoretical notions and practice are incompatible, it is theory rather than practice that is considered at fault. This view contrasts sharply with the attitudes of most policy makers, developers, and other school reformers, whose fundamental assumption is that more sophisticated ways of intervening need to be developed as evidence accumulates that practice does not follow the direction set by reformers. Theory and practice, according to the dialectical view, are much less fixed than in either the logistic or operational, and are assumed to change according to the shifting exigencies of the practical world. The essential task of the dialectical is to resolve oppositions -- in theory, in practice, and between theory and practice. To our knowledge, in the field of school improvement there are no working conceptions that are deliberately dialectical, although there are dialectical studies being conducted. Neo-Marxist views on the nature of knowledge are, for example, found throughout the educational literature. Although undoubtedly an oversimplification, our observation of this dialectical research leads us to believe that it is essentially concerned with radical reform and with the criticism of practice as representing inequitable social structures. While many of its conclusions may be accurate, they provide few practical resources for intervening in schools to improve what we have.

We conceptualize our work dialectically both in the methodology we adopt in our relationships with practitioners and in the outcomes we expect for the practitioners working with us and in the knowledge we generate. Unlike the dialectical studies aimed at radical reform, our work is based in the current activities of schools and is designed to contribute to their immediate improvement, either incrementally or holistically, in a more revolutionary way. Indeed, we believe that both ways are appropriate and possible, depending on the circumstances.

In summary, our view is that educational improvement over the past two decades has been guided by a logistic conception of the relationship of policy and practice. As a review of the empirical studies has shown (Connelly and Elbaz, 1980), the repeated difficulties and failures of this conception in school improvement have forced the development of operational and problematic conceptions. In our judgment, *logistic* views discredit the practical knowledge of practitioners, who often through sophisticated in-service work, are bent to the intentions of developers. *Operational* views frequently exhibit ethical problems in the manipulation of practitioners' practical knowledge. This problem, recognized by operational researchers, is the subject of elaborate ethical discussions in the literature. See especially some of the social-psychological work on school reform (Dill and Friedman 1979; Elmore 1978). The *problematic* has not been given an adequate test. The essential difficulty with it is that when it is taken seriously as the solution of specific practical problems, reform becomes sporadic and tends to lose continuity as one and then another problem arise and are solved. When the problems are set by others, as is the case in current educational reform literature, they are not genuinely local, and so practical needs and practical knowledge remain unrecognized. Our judgment, supported by our own research experience, leads us to believe that school reformers need to elaborate *dialectical* methods of relating policy to the improvement of practice.

4.3. THE THEORY/PRACTICE RELATIONSHIP AND ITS INFLUENCE ON ASPECTS OF NEGOTIATION OF ENTRY, CONCEPTS OF IMPLEMENTATION AND THE INTERRELATIONSHIP OF POLICIES.

4.3.1. Importance of Perspective on this Relationship

The view one holds of the theory/practice relationship can be seen as a broad, personal, intellectual theme which determines how an individual inhabits his professional world. One's sense of the appropriate relationship between theory and practice can thus be seen as an unexpressed conceptual theme used to cope with issues in one's practical, professional life. For us, as researchers, the notion of the theory/practice relationship constitutes a research construct with which we shape our efforts to understand teacher perspective or practical situations and associated theoretical counterparts, such as board and government policies, professional development content, and graduate studies.

The theory/practice perspective of school personnel at two levels -- system (central office) and schools -- became an important way to conceptualize their view of policy implementation, i.e., the way that knowledge finds its way into classrooms. Additionally, their view of us as researchers representative of the world of theory, reflects their view of the theory/practice relationship. Their perspective on the relationship of theory and practice both shaped their view of our research and influenced aspects of the process of negotiation of entry into the school system. This perspective is of further interest in understanding their views on specific board policies, which they view as indistinct from one another.

The three dimensions -- concepts of implementation, aspects of negotiation and the interrelationship of the three policies -- will be examined using the theory/practice framework. The first part of this section gives an account from the system-level perspective, and the second from the school-level perspective. Our interest is not in presenting our view of theory and practice but in showing how practitioners orient themselves in the world of theory and practice.

4.3.2. The System Level

4.3.2.1 Concepts of Implementation. At the system level, the view of knowledge and of how it finds its way into schools and classrooms suggests an underlying notion of theory and practice as separate and non-interactive. Theory can be understood to influence practice but practice is not seen to influence theory.

In what became known as the "Sunset Speech", delivered by the then Acting Director of Education of the Toronto School Board in August, 1980, the board's first priority was listed as implementation of policies already developed. The Acting Director summarized the situation as follows:

> *Unfortunately, the system rarely moved all the way down the line on any one initiative before another one was put in place... As a result, there are out in the school system a whole host of partially implemented initiatives. The authors of a particular initiative become frustrated and even angry when they see their brainchild either drifting along or even becalmed, and view this lack of action as recalcitrance or even subtle sabotage of something with which people disagree. Frequently, this results in a Board mandate that "these workshops must be held by the end of June and the Director will report on the outcome of these meetings.* (Address by E. McKeown to the Toronto Board of Education, August 27, 1980).

Knowledge can be seen as something developed and mandated by the board and delivered to classrooms and teachers through workshops, not an unexpected notion. This notion is picked up by central office personnel, who describe their position as "in the middle," between board trustees who develop policy and teachers who are to use it. Central office people "don't have time to implement" the policies and are often "overwhelmed at the number of policies that are to be implemented at the same time." Their view is that "teachers feel no responsibility to respond to each policy," and they describe the teachers' attitude toward implementation in the following way: "They have said there will be a workshop on Race Relations and you will go."

Knowledge in the form of policy became something for central office staff that could, as it were, be "poured down funnels" into the schools. However, because the area superintendent is seen as being "in charge of his own implementation," central office staff view policies as "having to fit what is going on" at the school. Therefore, policy developed at the board level is differentiated so that different parts funnel into different parts of the system. Schools are *not* receiving raw policy but an aspect that has been differentiated through the process of implementation.

This view of theory as something that can be transmitted into practice through a funnelling process, from the top down, can be seen as having an important shaping influence on how policy is delivered to schools. As the "funnel" is moved selectively over the system, different policies are, in effect, poured into the school. Because teachers and principals as practitioners have a limited capacity for handling new policy, only selected policies are funnelled in.

4.3.2.2 Aspects of Negotiation. The views of system-level personnel on the appropriate relationship between theory and practice heavily influenced how they dealt with us. Their views can be seen as influencing their selection of schools, their interpretation of the purposes of our research, and the advice and assistance they gave us in dealing with individual school principals. As a consequence, their views influenced our research purposes as we proceeded through a lengthy period of negotiation of entry into the school system.

The system-level staff with whom we spoke to negotiate our entry into the system saw the Race Relations Policy as "very much at the heart of implementation" in November, 1980. Race relations was described as "a hot item" and "very controversial." The view was expressed that we were "on firm ground - we had picked the right report." Consequently, we were seen as working in an area in which the central office and trustees were keenly interested.

Race relations was viewed as cutting across many central office departments, "far beyond the Race Relations Office." Many departments had a "vested interest" in the policy. Our research in the area would give the central office staff not only insight into "why teachers are not doing something with knowledge" but also into "the very strong feelings" on race relations in some schools, feelings that practitioners are "not allowed to express and that are not surfacing." Our research was perceived as valuable because it would offer them an insight into practice that they would not usually have. A view of the theory/practice relationship in which theory could be funnelled into practice did not facilitate insight into practice. Our research would give them some insight into the practical affairs of school.

Their view of our research and of us as researchers representing the world of theory can be seen as influencing many aspects of the negotiation process. Their general view was that practitioners had had "bad experiences" with research and were now "allergic to research." Our research was contrary to the traditional forms to which they were accustomed, and therefore represented for them a contrary view of the theory/practice relationship. The dialectical view of theory/practice from which both our view of knowledge and our methodology emerged was not consistent with their understanding of research. As we attempted to fit our research purposes and methodologies to the more traditional forms from their research office, conflicts and misunderstanding were inevitable. Our research was described as "bug around and ask questions" and we were advised that "research needs to be limited in recognition of the school system", "there must be as little invasion of the classroom as possible", and "observers must use instruments." Staff variously questioned our motives, "there must be something else than meets the eye - why are you spending so much time with teachers?" as well as the "fantastic cost of observers in ethnography and the use of humans to take samples". They also encouraged us in our work: "I hope it's approved and it's done."

The central office image of policy as "funnelled" into schools can be seen as influencing the recommendation of schools for us to work in. The notion of the funnel was used as a rationale for remaining in one area: it's "really a case study approach we need - we need one funnel." We were advised to stay in only one area at one level. The question of how many policies were funnelled into a school became crucial to which school we were referred to: one school was rejected because an evaluation policy was being implemented, two others because language policies were being implemented.

While our original intent had been to move into more than one school concurrently, the system personnel foresaw problems in trying to negotiate entry into more than one school at a time. They advised us that it would be "easier to get yes in principle than a specific school". Furthermore, we were "more likely to get one school" than several schools. Once again, the view of how our research would be received in practice influenced and shaped our research purposes.

As we worked with Toronto Board staff, our research purposes were further molded by their view of how both principals and schools and their Research Review Committee viewed the relationship between theory and practice. They advised us that practitioners did not want research "for an extended period of time." The more unstructured qualitative research that tried to understand from the practitioner's perspective would not be accepted. It would be necessary to "set up a time line"; "interviews once every two months would be seen as a nuisance" and "journals should be forgotten" as teachers already have "all kinds of paper work." Even though many of the more structured recommendations were incorporated into our proposal to the board, it was still this "ambiguity" surrounding our proposal that concerned them.

Michael Connelly, the principal investigator, was most clearly seen by school board personnel as representative of theory. There was considerable concern over how practitioners, the world of practice, would view him. He was advised to "never go in the classroom on a regular basis" and to "keep others to do the 'leg work'."

4.3.2.3 The Interrelationship Between Policies. At the central office level, policies are seen as unique even though they may be related to one another. McKeown in his Sunset Speech names four policies, each considered a separate initiative: "It was a time for being proud of achievements of this Board which has been an acknowledged leader in initiatives such as multiculturalism, race relations, affirmative action and programming to meet the individual needs of pupils" (Address by E. McKeown to the Toronto Board of Education, August 27, 1980). Policies are referred to as "initiatives" and each policy was a "particular initiative", a "brainchild".

Once again, the central office personnel see policies as separate entities. Certainly the notion of policies as pieces of knowledge that can be selectively "funnelled" into different areas and schools suggests that the policies are unique. Some of them are given a high profile by the media and central office action. For example, in early January, 1981, a flyer entitled "Where We Stand on Race Relations" was sent by the board to all parents whose children attend schools in the Toronto system. As one move toward implementing the Race Relations Policy, an Equal Opportunity Office was established. The fact that both the Race Relations Advisor and the Affirmative Action Advisor work out of this office indicates an attempt to unify at least aspects of the two policies at the central level. The first workshop to introduce teachers to the Race Relations Policy and the Affirmative Action Policy was conducted jointly through a slide-tape presentation entitled "A Tale of O". The presentation was done entirely with x's and o's; the o's could be seen as representing any minority group and the x's the majority. Since that time, however, the policies have again been treated as separate bits that, as theory, must find their own way into practice.

4.3.3. The School Level

4.3.3.1 Concepts of Implementation. At both the school administration and classroom teacher levels, the relationship between theory and practice can be seen as influencing the way people view the implementation of school board policies. In Circle School, the first school with which we negotiated entry for our research purposes, the following illustrates one view of implementation:

> *Mrs. Thomas [the principal] was very uncomfortable with the question raised on the document Where We Stand and at one point where a teacher talked about a hypothetical racial incident and it was clear the teacher didn't know what to do. Mrs. Thomas immediately said, "You call me." What this implies is that their procedures aren't clearly worked out on this policy"* (Field Notes, January 20, 1981).

The note suggests that while the teacher was aware of theory, i.e., the Race Relations Policy, it was of no concern to him until it had an impact on his practice. The policy was separate from practice until he was confronted with a problem, the need to send home a statement. The way that the school principal viewed her role in the implementation of the policy was to tell the teacher to refer each incident to her.

At the second school (Bay Street School) the principal indicated that "all staff have a copy of the Race Relations document. But who knows where they are now?" (Interview with Phil Bingham, April 15, 1981). Theory, in the form of policy, was again seen as separate from practice.

Mrs. Thomas, principal of Circle School, saw implementation as "top down" with different people in the system not knowing what others were doing. Different policies or parts of policies were implemented in isolation from each other. Mrs. Thomas was therefore not surprised that the brochure "Where We Stand on Race Relations" was sent out without the knowledge of the Board's Curriculum Department. (Interview with Mrs. Thomas, January 20, 1981).

Mrs. Thomas also saw that it was possible for teachers to provide input into policy development. She viewed the Toronto Board as open to staff opinions, and described the input her teachers had given the board for the 1975 Multiculturalism Report. Once the Report had been finalized, however, the recommendations were implemented from the top down.

Mrs. Thomas can be seen as viewing herself as the person standing between theory in the form of policy, and practice in the classrooms. She adopted a protective stance toward her staff, as suggested in the note. The teacher was to deal with a racial incident by bringing the offending student to Mrs. Thomas. Her view of herself as a buffer between policy implementors and her teachers is further suggested by the fact that while each teacher was to have a copy of the Race Relations Report, only one copy was available in her school.

4.3.3.2 Aspects of Negotiation. The view the school principals held of the theory/practice relationship can be seen as influencing aspects of our negotiation of entry as well as shaping our research purposes. For Mrs. Thomas, theory and practice were seen as separate and distinct, theory having little to do with practice. Research, a theoretical concern, was something she had once done but with which she was no longer concerned (Interview, January 9, 1981). She spoke of a number of research studies currently being conducted in her school but saw them as distinct from practice (Interview, January 9, 1981). Our research proposed a qualitative methodology in which teachers and principals functioned as co-researchers. This methodology seemed "ambiguous" to Mrs. Thomas (Interview, January 20, 1981). She had no sense of herself as part of the research team but rather commented that she "supposed that she would have to be interviewed" (Interview, January 9, 1981).

Her interest did not lie in understanding our research purposes, although Dr. Connelly attempted to explain them. Mrs. Thomas wanted to know more about Clandinin -- what her background was and what she would be doing on a day-to-day basis in the classroom (Interview, January 9, 1981). She could see no role for a theoretician in the school but felt that our only advantage would be in the classroom where we would be able to use our practical skills (Interview, January 20, 1981).

Her way of explaining our purposes and presenting the research to her staff reflects her view of the theory/practice relationship. She asked teachers to volunteer for the study before they had an adequate understanding of the research purposes. She raised two points of concern before the staff: one described our study as "ambiguous" and the second questioned "what we could do for the school" (Staff meeting, January 20, 1981). Mrs. Thomas' view was that practitioners could be useful for theoreticians to study but theory had little to offer practice. Therefore, it appeared to matter little to her what understanding the teachers had of our proposal. The following questions illustrate the uncertainty the teachers felt about our research purposes: "Was our study concerned with the origins of racial problems?"; How do we relate to the Board policy (the teacher's concern over the Board pamphlet); and What are you doing? ("research ambiguity") (Staff meeting, January 20, 1981).

Mrs. Thomas indicated she would be interested in having us in the school if we were working on any other policy, i.e., the evaluation policy (Interview, January 9, 1981). We might have imagined she was not interested in the Race Relations Policy because she did not see herself as having a theoretical problem in the area of race relations. However, when she was approached by a doctoral student working in language across the curriculum, a topic in which she said she was interested, Mrs. Thomas did not want him in the school for an extended period of time.

Although theory was distinct from practice for Mr. Bingham, the principal of Bay Street School, it could be seen as useful to support practice. He thinks of himself as having what he calls "a philosophy." (Meeting with P. Bingham, March 19, 1981). He identifies this philosophy as based on someone's writings. He identified "our study as close to his philosophy" (Meeting, March 19, 1981). He saw us, then, as "academics" but with a theoretical stance similar to the one on which he bases his practice.

However, he maintained a sharp differentiation between theory and practice. He was concerned about how Connelly (a professor and researcher) would fit into the school, and uncertain about where academics would fit in practice (Meeting, April 15, 1981). He accepted Clandinin because he saw her as a "practitioner" with practical "skills" (Meeting with cabinet, April 6, 1981) and saw her as "fitting right into the classroom." (Meeting with P. Bingham, April 15, 1981).

Since Mr. Bingham could accept theory as a support to practice, it was with this stance, i.e., as accepting us "as a resource" and as "suggesting materials" (Meeting, April 23, 1981), that he agreed to act as our "advocate." His acceptance of the research and his promise to serve as our advocate were important steps in our negotiation of entry into the school.

That he still had difficulty in understanding how Connelly would fit into the work of the school became apparent after we had gained entry. His decision on where to place Connelly in the school (with the teacher-librarian) can be seen in many ways as a playing out of his theory/practice view. Connelly, the theoretician, would be placed in the library where he would be viewed as a support to practice. Mr. Bingham's view of theory/practice had a significant impact on our research purposes, since our intent to function in only classroom settings with classroom teachers was modified.

In many ways the two principals' views of the relationship between theory and practice can be seen as influencing our negotiation with the classroom teachers. Mrs. Thomas, who saw herself as a buffer between theory and practice, had intended to meet with us and then independently approach her staff, explain what she understood our research to be about, and then ask teachers to volunteer. Only at our insistence were we able to meet the staff (Interview with Mrs. Thomas, January 9, 1981).

Mr. Bingham's view of theory/practice may in part account for his continuing consultation with various key teachers in the school over our entry to it. He did see our potential value as resources (Meeting with P. Bingham, April 15, 1981) and sought confirmation from his teachers. His perception was that we would be useful to the school but he wanted his teachers to see us as useful before he gave his approval. His eventual placement of us with a grade 1-2 teacher and the teacher-librarian can be seen as influencing our research purposes; Connelly was seen as a theoretician and placed with the librarian, while Clandinin was identified as a practitioner, as the following field note indicates. "After the meeting, Phil asked where I had worked. I said in the Edmonton Public and for one year as a consultant in York Region. He said, 'Well, consultant rings a bell'." (Meeting with P. Bingham, April 6, 1981). From his perspective, therefore, she could be placed in a classroom.

4.3.3.3 The Interrelationship of Policies. At the system level, the policy initiatives of the board can be seen as separate and distinct initiatives. Personnel at the school level adopt a different perspective. In Circle School, Mrs. Thomas had played an active role in the development of the 1975 Multiculturalism Policy. Her staff and her community had contributed to its development (Interview with Mrs. Thomas, January 9, 1981). She saw the Race Relations Policy as just an extension of the Multiculturalism Policy. While she wouldn't deny that the Race Relations Policy was important, her perception was that her staff had been working in the area since the 1975 report. One policy was hardly differentiated from the next (Interview, January 9, 1981).

In Bay Street School, to which we eventually gained entry, there was a sense that the Multiculturalism, Race Relations and Affirmative Action policies were interrelated (Meeting with Mrs. Anderson, Race Relations representative, April 15, 1981). The school, as mandated by the board, has selected two Race Relations representatives and one Affirmative Action representative. While these representatives attend different Area meetings and interact with different Central Office staff, at the school level their work is very much related. The Race Relations representative responded to a question about racism and library materials with a comment that among other things teachers were more sensitive to "stepmother stories" (Interview with Mrs. Anderson, May 4, 1981). In a similar way, the Affirmative Action representative easily moved from racism to women's rights in her discussion about practical matters of implementing the policy (Interview with Ms. Smith, May 11, 1981).

Mr. Bingham, the school principal, indicated by sweeping his hands together in a gathering motion, that his image of the two policies is of one thing (Meeting, May 6, 1981).

A teacher from another school, Hertzberg Public School, who serves as both Affirmative Action and Race Relations representative for her school, indicated that "nothing was happening on the Race Relations Policy." There was abundant activity, however, in Affirmative Action. The teacher seemed to view the two policies as distinct and certainly saw much difference in their implementation (Field Notes, May 6, 1981). This view is consistent with the Central Office one of funnelling different policies into different schools. We were advised against working in Hertzberg School because two other policies were being funnelled into that school.

4.4. THEORY-PRACTICE: A GUIDE TO RESEARCH METHODOLOGY AND TO CONCEPTS OF PERSONAL PRACTICAL KNOWLEDGE

The theory-practice theme, theoretically described above in our account of McKeon, (Section 2.2) and practically seen in the discussion of implementation and negotiation of entry, serves to structure both the research methodology of this study and the concepts of personal practical knowledge elaborated. A dialectical method of interaction between researcher and practitioner in school research is described in Volume I, Chapter 3, on "Methodology". Here, research is seen both as a practically productive endeavour and as a theoretical, researcher enterprise. In Volumes III and IV, the concepts of personal practical knowledge are worked out along theory-practice lines. For instance, classroom practices become theoretical when interpreted. Neither theory nor practice stands alone. Therefore, there are no abstract discussions of such concepts of personal knowledge as "image"; an "image" is an idea embodied, a theory in practice. Likewise, we imagine the actions of individual practitioners to occur both on theoretical and practical dimensions. For instance, we refer to a teacher's statements of belief about himself as a "personal philosophy", a philosophy which constitutes a personal theory of one's practice. Again, theory and practice are intertwined, since an abstract statement of one's personal philosophy is insufficient. Personal philosophies are meaningful in the context of particular actions.

Readers of Volumes II, III and IV should be alert to theoretical counterparts when practical, descriptive material is presented. Conversely, theoretical sections should be read with an eye towards their expression in practice.

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